DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. VIII. BOSTON, OCTOBER, 1856. NO. 10.

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OCTOBER AND ITS SUGGESTIONS.

October! Season of soft suns, and mild airs; of falling leaves and ripened crops. Fruition of the year! When gathered harvests swell the barns and fill the cellars, so that there shall be no winter of want or discontent. The early morning sparkles with frost or dew-drops, at noon the sun's rays reach us delightfully tempered by the hazy atmosphere, and the cool evening, bringing the family around the bright fire, closes the day with charming contrasts. But like the flowers, and a thousand things near us, the beautiful changes, and the peculiarities they bring, are unregarded by too many.—They are gradual, and the well-tempered mind falls into unison with them, and expands with the pleasing truths they teach.

There are some persons always living in the country, who know little of country life; they forget that

"There's beauty all around our paths, if but our watchful eyes
Can trace it midst familiar things, and through their lowly guise."

The grass grows at their feet, but they have only deemed it fit to tread upon, or for the brutes to graze; that it is the basis of all our prosperity, and sustains the world, are facts which have never occupied their thoughts. The tree drops its foliage on the earth, and presents its naked branches to winter storms and winds, yet they have not reflected upon the office of the leaf in perfecting the fruit, or in contributing to their own comfort and health. The Voices of Nature are peculiar to the months, and change with the seasons, but they regard them not, though they are full of attraction and lessons of wisdom to the observing mind. How many have passed early life near a pine wood, the grand temple of nature, and yet never sat in silent contemplation, amid the ever-returning murmurs among its branches, like the dull, distant sound of marching armies, or mighty ocean-waves washing a trending shore! How many near an ancient forest of oaks, beeches, and chestnuts, peopled with denizens finding every want supplied amid their solitudes,

"Where the sound of dropping nuts is heard, though all the wood is still,

and yet have no proper appreciation of the life and offices of the forest, or of its inhabitants, or of its effect on the imagination and heart. Who see in the forest excellent timber only, for railroad ties or ships, or fuel for the fire! forgetting its effect in the landscape, its wings of shelter, or its indispensable duties as an atmospheric agent. The springs flow on in their joyous course, and they drink and are satisfied, or the hills are parched, the water courses dry, and they famish, yet without pausing to trace the cause of either, and live a listless and unobserving life. Neither the changes of the Seasons, the Voices of Nature, or the suggestions of the living world around them, arrest the attention or inform the mind.

High culture in one department, is quite likely to excite to a higher degree of culture in another. The family which occupies a farm where the fields and fences and the rotation of crops is systematic, —where the hours of labor and of eating and sleeping are regular, will be more likely—as a general thing—to send the children to school, to have a variety of well selected books about the house, and attend to the *culture of the mind*, than the family where order and an economical arrangement of its affairs is neglected. Our habits do not stand alone in their influences; one runs into, and gives tone and coloring to another. It is so in the moral

world. He who habitually violates *a single* moral duty, will scarcely be found true to all others. The careless and indifferent farmer will be likely to introduce his habits and tastes into the household, because they are contagious, and as all the duties of life are so intimately interwoven into each other. And these are the natural suggestions of *October*, because October will faithfully discharge its offices of the seasons, and be true to itself. Such should be our fidelity.

Culture brings refinement of taste and feeling, gives us new and better views of life, and an increased power over the elements, as well as ourselves. But even culture must be tempered by prudence and reason. There may be too high culture in the field for the best good of the plants; there may be too high culture for the intellect, and there is always danger that the appetites may be too highly excited or trained. Even among farmers, engaged in the most healthful occupation, a large amount of the sickness and disease which prevails, we think may be traced to an undue cultivation of the appetites. We are too refined in our diet; our food is not only deprived of certain elements indispensable to health, but it is taken in too concentrated a form. The grains of wheat from which our flour is made, contain, among other things, *iron*, a certain portion of which is necessary to health, and ought to be taken in the minute quantities in which we should naturally get it in our bread. But by the *cultivated* art of the miller, this is refined away, and consequently, we suffer. This sufficiently illustrates our point.

October suggests that all the harvests should be carefully secured;

That cattle should not feed mowing fields very closely;

That Indian hills should be split, and stubble grounds plowed;

That walls may be built or repaired;

That swamps may be reclaimed, wet uplands drained, and stones in fields to be cultivated, sunk below the reach of the plow.

October suggests that the gathered apples packed in barrels should not be left exposed to the sun, because they are heated during the day, and suddenly cooled during the frosty nights, thus frequently changing their temperature, and hastening decay;

It suggests that apple trees that were not pruned in June, may be attended to now;

That aqueducts may be laid, water-courses cleaned, cisterns formed, and matters about the house arranged for the comfort and convenience of the women and children.

Lastly, October suggests to us all that this month is usually a delightful one in which to visit our friends in adjacent towns or States; not shut up in a railroad car, but drawn by the horses who have been our friends during the summer's labor; well fed and groomed, they will enjoy it too. The air is pure, cool, and elastic, the scenery attractive and beautiful beyond description, and the roads usually good. Do not, then, deny yourselves of this common means of a higher intellectual and agricultural culture, so that you shall be able to say that you have found more true wisdom in this than in any former month of October.

GATHERING CLOVER SEED.

A writer in the *Valley Farmer* gives the following method of collecting clover heads.

"We once made and used for many years, a very simple machine for gathering clover heads, with which a man and horse can go over and gather the seed from double the quantity of land in a day than he can cut over with a scythe; and when the heads only are gathered, they require no other labor, except drying, to prepare them to run through the hulling and cleaning machine. Any tolerable workman can make one of these machines in two days. It is upon the following plan: Make an ordinary sled with sides or runners 14 inches wide and 6 feet 6 inches long. These may be placed 5 or 6 feet apart, and secured together with two cross pieces only at the back end, leaving the forward part open to the length of 3½ or 4 feet; then a box is made to nearly fill the width between the runners. The box is 4 feet long and 15 inches deep, with the forward end open. To the cross pieces at the bottom of the box, at the forward end, teeth of hard wood are secured so as to project about 12 inches; they should be ¾ of an inch thick and 1 inch wide on the top, and made a quarter of an inch narrower or beveling on the underside. These teeth are placed *three-sixteenths* of an inch apart, so as to form a comb. If the upper side of the teeth were capped with hooped-iron, neatly fitted, it would be better. This box is hung between the sides of the sled upon two gudgeons or pins two inches in diameter, just as cannon is hung in its carriage. With two handles, four feet long, secured to the box and projecting behind, the box may be moved on the pins so as to lower or raise the teeth to adapt them to clover of any height. A man with a horse can strip the heads from four or five acres of clover in a day with this machine, and collect it in the box. With one of these machines a farmer can gather as much seed in a day as would be required to seed forty or fifty acres. It needs no hulling or cleaning unless it is designed for market. Some prefer to sow the seed in the chaff to that which is cleaned.

☞ Will some one inform us of the post office address of Mr. Hayward, editor of the *Gazetteer of New England?*

☞ Hon. B. Murray, in a letter to the *Prairie Farmer*, published at Chicago, Ill., proposes to be one of 100 subscribers to a fund of $50,000, to be awarded as a premium for a perfected steam plow suited to farm use, and capable of performing the work at an expense in money not greater than the average cost of performing the same work under the present system.

For the New England Farmer.

EXPERIMENTS IN AGRICULTURE.

MR. EDITOR:—I have read the monthly issues of the *Farmer*, during the past year, with much pleasure, and I trust with profit. With the high tone of morality which has manifested itself through its columns, I have been especially gratified. But with all the fine wrought theories which agricultural books and papers contain, I find it not best, always, to trust them. The farmer, after all, must be an experimenter himself, at least, to some extent. The kind of tillage which suits one locality may not always work well in another. This I have found to be true by experience. Until twenty-one years of age I resided on a farm in the south-westerly part of Windsor county, Vt., where tolerable crops were raised by shallow plowing. Subsequently, for about fifteen years I was engaged in another calling, after which, I purchased a small farm in Orange county, Vt. Here the soil was of a dark loam, and appeared quite deep, without any *hard pan* underneath. My neighbors mostly practised shallow plowing, but I found by plowing deep, much better crops could be raised. I had been accustomed to seeing potatoes cultivated on land that had been tilled the previous year and become somewhat mellow; here I found they did much the best to plant them on green-sward, the rougher the better, provided they would grow at all.

In 1853, I removed again to Windsor county. Here in attempting to raise potatoes on green-sward my crop was almost a complete failure; the next year I planted on the same ground as the year before, with very good success. I find that shallow plowing produces better crops here, than deep plowing. One of my neighbors who has resided here a number of years, when breaking up his ground, usually cuts the sod only from about four to six inches in depth, and he has sometimes raised thirty bushels of wheat and forty of barley to the acre. Though much in favor of deep plowing where it will answer, I have come to the conclusion that shallow plowing is best adapted to some kinds of soils.

Another item of experience I wish to mention. Last spring I wished to obtain some superphosphate of lime to apply to my wheat ground; and supposing I could manufacture it somewhat cheaper and *quite* as pure as any that I could purchase, I engaged a merchant to procure me two hundred pounds of ground bone when he went to Boston to purchase goods. But he delayed going to the city, until I found I could not prepare it in season; so, having a quantity of bones on hand, I broke into small pieces about fifty pounds, placed them in a tub, saturated them with water, and then poured on ten pounds of sulphuric acid. The next day I poured on ten pounds more of the acid, stirred it often for a fortnight, but somehow or other they didn't dissolve.

As the time for sowing my grain drew nigh, I concluded some other method must be resorted to or I should lose all my labor and money too, that I had expended. So I poured off the liquid, placed the bones in a large kettle with a sufficient quantity of water, with a half bushel of lime, and after boiling them about twenty-four hours, they were nearly all dissolved as fine as the lime. After taking it from the kettle, I stirred in the diluted acid with it, and having mixed the whole with a quantity of chip manure, spread it on the land. Whether it was of any particular benefit or not, I am not able to say, as the ground was rather too moist when the wheat was sown, and it did not come up well; but the heads of that which did grow were large and well filled. I think the next time I undertake to manufacture superphosphate, *I shall let it alone.* I am inclined to think that farmers, especially those back in the country, instead of sending to the city for concentrated manures, might contrive by saving their liquids, or some other way, to enrich their land equally as well with less expense. The cost of my sulphuric acid was ten cents per pound, and my bone meal, which at last arrived, came to nearly five dollars, but instead of two hundred pounds of ground bone, it was a *barrel* of something, I know not what, but by its smell I conclude it must have come from some *filthy place.*

I ventured to use some of it on my corn, but without any apparent benefit. Bones dissolved in lime applied to land, I think may prove beneficial, and I intend trying it again the coming season.

L. B. PETTENGILL.

Weston, Vt., 1856.

For the New England Farmer.

FATAL DISEASE AMONG HORSES.

DEAR SIR:—The disease of which you speak in the *Farmer* of the 30th ult., is caused (usually,) by cold closing the pores, producing catarrh or influenza, with congestion of the brain, affecting the nervous system, and circulation of blood in the small, or capillary vessels. The remedy is, to restore and equalize the circulation of blood, and open the pores. I use a vegetable deobstruent powder, one tablespoonful on wet oats, (sprinkled on the surface dry, so as to have the aroma taken into the nostrils) three times a day, the animal to be well stabled, and thoroughly blanketed, and the legs bandaged with flannel. Castor oil, or a strong decoction of thoroughwort, (*Eupatorium perfoliatum*) is the proper physic. This course has cured every case, if used before the jaws were set and the animal refused to eat.

The deobstruent powder is a preparation I use in influenza, in the practice of medicine, and is worth $4 per pound; half a pound is sufficient to cure one horse. LAWSON LONG, M. D.

Holyoke, Sept., 1856.

NEW HAMPSHIRE STATE HORSE SHOW, AND HILLSBOROUGH COUNTY AGRICULTURAL AND MECHANICAL FAIR.—The Hillsborough County Agricultural Society have determined to hold their annual fair this year in Manchester, on the Fair Field, on Tuesday, Wednesday and Thursday, Sept. 30, and Oct. 1st and 2d, in connection with the Granite State Horse Show, which will be held at the same time, under its auspices.

SNOW-BIRDS IN SUMMER.—Will Mr. Fowler, or some other correspondent, tell me where snow-birds tarry during the summer and rear their young? Yours, T. C.

For the New England Farmer.

THINGS IN VERMONT.

Mr. Editor:—I noticed the article in your paper of Jan. 12, about "Things in New Hampshire," in which your correspondent gives a description of some of the rural districts in that State, and, strange to say, he confounds Vermont, as partaking of the same defects to such a degree, that "whereas Vermont and New Hampshire once supplied the cities with butter and cheese, they now do but little towards it." In respect to the latter State, I have nothing to say. But I think I can prove to your correspondent that Vermont, instead of suffering a decline in the production of butter, cheese and wool, is very rapidly increasing in these products, and many other products of the farm. Any reasonable person who will compare the number of cattle, sheep, &c., which are carried to your city from Vermont, with those of the other New England States, would be at once convinced that this State is yet occupying the front rank in that respect, and consequently if Vermont sends a yearly increasing number of cattle to market, it must be the same also in the amount or quantity of butter and cheese. Why is it that the provision dealers of your good city take so much pride in displaying the sign of "Vermot butter," &c., around the entrance to their sales-room? Does it not denote a superabundance of the article from that State, also superior quality?

The Green Mountain State has ever been fresh with laurels won from the soil, gained by a successful war waged against the thorns and thistles which throughout the whole world rise in opposition to the farmer. Our virgin soil, cultivated by the skilful hand of the Green Mountain boys, has amply repaid them for their labor in supplying our own families with choice vegetables and fat meats, and thousands of others beyond the limits of our State.

The dairy, too, under the supervision of our wives and mothers, assisted by their fair, wise and *virtuous* daughters, (who unlike the city belles, are not ashamed of labor,) will still continue to pour forth its choice productions, to grace the tables of the city consumers.

As I have visited several of the counties in this State, I will give a description of a few localities, which shall not be selected, but may be taken as a general average throughout the State. Although Vermont has so much good soil of which to boast, yet there are large tracts of excellent land which are not improved.

In the counties of Orleans, Caledonia and Essex, there are several towns which have been settled from fifty to a hundred years, and yet increase so slowly that the best of timbered lands, with soil to match, may be bought for from three to six dollars per acre. These lands, however, are situated in the towns which are a short distance back from the principal business towns, and in those, real estate is, perhaps, as high in value as in New York.

In the town of East Haven, Essex County, are more than ten thousand acres of unimproved land, with a soil adapted to all kinds of grain, and as good for grass as the best old farms in the State. The timber is for the most part "mixed," with hard and soft wood, consisting of spruce, hemlock, maple, beach and birch; But in many sections the timber is nearly all hard wood, mostly large rock maples, together with a few beech and birch.

If the emigrants westward from New England would turn their attention to the unsettled acres in Vermont, they would find them far better than any description yet given, where they would find no fever and ague to shake the possessors from their possessions, and would be, by the assistance of steam, within a day's ride of Boston. These lands of which I have spoken, will soon be in close proximity to the new railroad which is now begun, from St. Johnsbury to Derby Line.

The town of Derby is situated in the north part of Orleans County, extending to Canada Line. It has three villages, the central, north and west. The centre village is a beautiful plain, through which flows the river Clyde, which furnishes an abundant water power. The country through which the Clyde runs is so level that a small milldam, in the town of Charleston, shuts back its waters for the space of six miles. At the centre village in Derby is located Derby Academy, a flourishing institution, largely patronized by the lovers of education.

The scenery around this village is unsurpassed. The beautiful farm buildings everywhere meet the eye, filled with the productions of the rich soil. In the distance rises a range of picturesque mountains, at whose base rest the placid waters of Lake Memphremagog.

In a short time the iron horse will be heard thundering his way along to be hailed with joyful acclamations, which will, undoubtedly, increase the business and beauty of the place, as it has done for other places of a like character. J. P. Smith.

Derby, 1856.

For the New England Farmer.

THE EFFECTS OF THE LATE HEAVY RAINS UPON FISH.

Mr. Editor:—Last week my attention was called to the large quantities of fish found dead in our mill ponds at Danvers-port. The dams forming these ponds are thrown across arms of the sea, and are filled with salt water, at every flood tide. In the summer season, salt water fish from the ocean visit these ponds, and remain during the warm season. The heavy rains, that have occurred of late, have filled the ponds with dirty fresh water, and have prevented for some days the opening of the flood-gates, thereby hindering the sea-water from entering the reservoirs, thus causing the destruction of all the strictly salt-water fish and the crustacea. These dead fish are so numerous, as to cause a very unpleasant odor in the vicinity of the ponds. I noticed none but the true salt-water fish suffered in this freshet, such as the Blue Perch, or Conner, Flounder and Menhaden. All the crustacea have perished which came into the pond from the sea, such as the common and horse-shoe Crab, and Lobster. How the minute crustaceous animals, the *Limnoria terebrans*, which feed upon the wood immersed in the pond, and cause so much mischief to the wooden structures erected about the dam, stood effected by this influx of dirty fresh water, I do not know; time will determine. Our hopes are, that they are all destroyed. The eels and minnows did not appear to suffer, and all the shell fish inhabiting the pond escaped. I observed in many places great numbers of one kind of fish, such, for instance, as flounders, in a dense mass, which led me to suppose something like a common sympathy in their distress might have caused them

thus to come together. Whether the freshness of the water, or its turbidness, caused the death of the fish I do not know, but probably both combined.

This rising of the water in our ponds and meadows, at this season of the year, is unusual, and has been severely felt both by animate and inanimate nature. The trees and shrubs around our water courses now begin to exhibit its effects.

Such a succession of heavy rains, as we have lately experienced, was probably seldom known, if ever observed, by that very old and respectable gentleman, "the oldest inhabitant."

Yours, &c., S. P. FOWLER.

Danvers Port, Aug. 16, 1856.

LETTER FROM MR. BROWN.

Hancock, N. H., Aug. 18th, 1856.

DEAR SIR:—From Concord, Mass., to this place by county roads, the distance is fifty miles, and one can scarcely travel through such a distance, over a route of poorer land, or one presenting less inducements to agricultural life. Bordering the road over which we travelled, the soil is thin, and either abounding in uncounted stony or gravelly knolls, or thickly studded with boulders, too large to be removed by cattle, and too gnarly to be reduced to any regular shapes by wedge or powder. In particular locations, however, there are exceptions both to the general charge against the soil and the rocks; for about some of the villages, and along some of the streams, there are oases of originally fertile and now highly cultivated lands. Some of these produce fine crops of corn, wheat, barley and oats, and especially grass, occasionally amounting to three tons per acre of the latter.

In the neighborhood of these lands, there are comfortable farm-houses, painted; commodious barns, sheds, and granaries, good fences, barn-cellars, and a general appearance of thrift and comfort. Here, too, are to be found improved agricultural implements and stock, things rarely attended to where the energies are fully taxed to protect the body against the elements and hunger. It is no use to talk to a man of the rotund and juicy Durham, or of the buttery Alderney with her meek face and silky coat, who hasn't a peck of meal in the chest, and the corn on whose lean and hungry soil looks as though it must be *budded* this year, to enable it to arrive at the common stature of corn next year or the year after! Talk to the mother of the virtues of system, neatness, of the education of her children, and she will tell you that she has done all she could, and point you to the stern and barren fields that refuse to reward their unremitting toils. No wonder the broad West looms up with visions of golden cakes, pails of frothing milk, and pitchers of cream.

It is an incontrovertible fact that there are thousands of acres in Massachusetts, and tens of thousands in New Hampshire, upon which the energies of man should never be wasted. There are acres enough without them. There are acres without original fertility, on mountain tops, or sides, away from streams, or good roads, swept by rains, and scorched by summer suns. They are difficult of access to plow, manure and plant, or if, providentially, a crop is grown, to secure it. To persist in their cultivation is a contest between man and the powers of nature, in which the former will certainly come off second best. It has been going on now between one and two hundred years. The axe and fire has swept the noble forests from the hills, while innumerable crops of rye have taken up the virtues of the virgin soil, to which nothing has been returned. By removing the forests, the springs that ran among the hills have disappeared, and gradually, year after year, the rich, leafy mould has been taken up, until nought but a scanty and innutritious vegetation is left springing from a bleached, thin and inactive soil!

Man, here, is yielding to natural, but inexorable laws. The gloomy records of his defeat are left upon the land. All along the way, occasionally in the valley, sometimes on the narrow plain, but mostly on the bleak hills, stand dreary monuments not only of his *defeat*, but of his *retreat*, also, from the unequal contest. In a brief travel of only one day, stand more than fifty deserted mansions to attest this fact! These are not the tenements of the first settlers, but the re-buildings of their descendants, never to be repeated: one, only, mostly demolished, showing the log structure of the pioneer. Here and there some careful hand has removed the dilapidated frame work, and the cellar only marks the spot of the habitation. In the other cases, no herds stand in their stalls, no smokes curl from their chimneys, and the grass—nature's beautiful covering where man mars—has overspread the pathway to the doors. Owls and bats may enter and enjoy their solitary reign, but man inhabits there no longer, nor ever will. In those deserted rooms no human hearts will again beat with tumultuous pleasure, or anguish and pain; no hopes will flatter,

"No days of toil, or nights of grief,"

be related around the morning board, or in the evening chair.

Though perhaps not strictly applicable to the condition of things around me, I could not help recalling that beautiful, but somewhat melancholy poem of Goldsmith, *The Deserted Village*, and especially the following passage:—

"Princes and lords may flourish and may fade,
A breath can make them, as a breath has made:
But a bold yeomanry, a country's pride,
When once destroyed, can never be supplied."

All around these once fair representatives of civilization, Nature is rapidly making encroach-

ments; and there are unerring tokens of her impending approach. The clang of the anvil has ceased; the mill grinds not, nor saws, and the mountain stream babbles or roars along its unimpeded course. The majesty of State laws compels to a good condition of the public roads, though there are few to travel them. But Nature is on her triumphal march, and trenches upon these as well as the garden and the field. First comes the grass, like the atmosphere, determined that there shall be no vacuum in nature. It covers the fallows of husbandry, the deep cuts made for the avenues of trade; spreads over and obliterates the art or skill of the landscape gardener, and claims a place or even superiority, with the exquisite flowers of the parterre. It is universal. Cattle graze and enjoy it, and minister to the wants of man.

But as the lion reigns supreme in the locality which he has inherited or selected as his own, and levels contributions over still wider circles, so there is a power behind the grass which shall not only supplant, but drive it from its realm. The *forest* approaches. Here and there, where the decaying rock yields up its potash or its lime, fit food for the embryo plant, appears the pine, ash, oak, maple, beech, birch or walnut, and soon assumes the form and comeliness of a tree. Various shrubs mingle with them, whose innumerable leaves extract from the atmosphere its nutritive properties, and these, cast annually, cover and protect the surface and supply nourishment to the roots of all. Forest trees take the lead, and as they gain superiority, the lesser plants yield, laying down their lives—a sort of vegetable martyrdom—for the general good; they were useful in life, and when done with that, still continue to sustain the living growth. Here is a new state of things. Man and his ways have disappeared. Nature has assumed the sway, and again clothed the earth in her primitive dress. The forest is everywhere, covering hill, valley and plain. Silence is in its dark courts, save when the thunder breaks over it, or the tornado prostrates it with its ferocious breath.

Such is the course of Nature—to contend with her is worse than folly, being no less than a sacrifice of health, prosperity and comfort. Let her have these lands, and use them as she will. In thirty years they will be covered with trees fit for timber and fuel, and return a profit to their owners.

In the mean time, if the proprietors of the more level and fertile lands wish to keep the native population at home, they must invite the mountain-men and the cobble-stone-knoll-men into their districts, and give them employment in the numerous manufactories of one kind and another, or divide their rich lands with them for a fair compensation. These lands, under a higher state of cultivation, will produce well nigh as much as the whole do now, while the products of the forest will be a clear gain; an immense expense of fencing and road-making will be saved, the sparse population will be gathered into more compact communities, taxes of all sorts decreased, and the facilities for the transaction of business and the general welfare and happiness of all greatly promoted. If these things are not regarded, the emigration West will continue until scarcely a type of the original New England stock will be left, and the Shylocks who hold on to the better lands with penurious grip, will find themselves surrounded by those speaking other tongues, and in whose veins runs not a drop of their ancestral blood.

The fiat has gone forth, and puny man cannot check its career. Large portions of Massachusetts soil, and immensely larger of Maine, New Hampshire and Vermont will grow up to forest, in spite of furnaces and locomotives. England has passed through the same process. Even now, some of the old towns of Massachusetts, already settled more than two hundred years, have a great many more acres covered with wood than they had fifty years ago. In the introduction of scientific principles to his fields, the farmer's head now performs much that was once required of his hands. He tills less land, but the cultivation is more systematic and thorough, and when his crops are secured, they are expended with an economy little understood by his predecessors.

Our travelling companion, Jacob B. Farmer, Esq., of Concord, Mass., is a gentleman of rare powers of observation; he confirms the views we have expressed,—states that he has travelled over the various routes we have now taken, more than one hundred and fifty times within forty years, and that he has noticed these desertions of the original homesteads through the whole time,—but that a large majority of them belong to the latter half of that period.

In this stroll among the farmers, we passed through fourteen towns,—eight in Massachusetts and six in N. H. Hancock, from which we date, is generally hilly. On the south and easterly portion there is a comparatively flat tract of several hundred acres of exellent land, much of it free from stones, and producing large crops of good quality grass without manure. It is seldom plowed. Mr. David Wood, who owns one of the farms occupying this tract, has adopted the English fallowing system on a portion of it, by plowing two or three years in succession, and then seeding down, but with what success, we did not learn. Mr. Wood usually winters some thirty horses, a pair of oxen, and several cows, for all of which the hay is cut. The horses perform no labor, and are kept in good condition, by a half bushel of cut hay, and a quart of meal, corn and oat meal, twice each day.

Out of the 19,000 acres of this town, we should

judge that 13,000 are devoted to pasturage. Mr. Wood owns some six or seven hundred,—a considerable portion being owned by Massachusetts people, whose cattle, principally milch cows, graze here through the summer months, or even until the last of October, in favorable seasons. Capt. JOSIAH STONE owns another of the fine farms comprising this tract; he winters some forty head of cattle, and in his pastures we found about half a dozen heifers, for which we endeavored to effect a change for sundry of the promises to pay by Massachusetts banks; but without effect. He had the eye of an amateur, as well as the hand of a farmer, and intends that the heifers shall grace his own stalls. Some fine colts, also, ran in his pastures, among them a Morgan, which we should be glad to "hold the ribbons over" at some future day. Capt. Stone is a progressive farmer. He found a path for the water, and it comes to house and barn by its own gravity. No manures bleach in the sun, or are drenched by storms, in his yards; cuts hay for horses; believes in the efficacy of science, and the education of children; makes domestic arrangements convenient and comfortable for his wife and daughters, and wears a cheerful countenance and a happy heart generally—all essentials in farm husbandry. The hill portions of this town are mostly devoted to grazing, and afford evidence of the fact that large portions of the lands of the State are fast returning to their primitive condition,—the forest. They are now in the first stage of the process, grazing lands. We look up here to the Grand Monadnock, to which a party of Young America, of both sexes, has just started. We wish them a happy occasion; but the grim cap on the old fellow's head indicates anything rather than sunshine and extended vision.

My letter is already too long. I believe in "short stories." But I shall write again from another halting place. Truly yours, SIMON BROWN.

Joel Nourse, Esq.

THE NEW STEAM-FARMER.

I devoted two days to the examination of the operation of Boydell's Traction Steam-engine as a locomotive and tractive power, and have come to the conclusion that it is "a great success." This success is owing to the endless and wide railway attached to the circumference of the wheels, which gives a fulcrum for the lever, and a bearing sufficiently wide to carry a great weight on soft ground, without imbedding in the soil. Hence the avoidance of friction and clogging. We might illustrate this by a sportsman on the mud oozes, whose feet would sink in, and thus render his power unavailable; but by attaching to his feet wide pieces of board, the pressure is diminished to a bearing condition. Thus in the case of Mr. Boydell's machine, although it weighed nine tons, its impress was scarcely perceptible, where a horse's foot left a deep indentation. The engine walked from Camden-town to Acton, taking in tow its four-wheeled wagon, with coals, and four heavy iron plows, and water enough for four hours' work. When on the soft turnip-field—after a night's rain—it drew after it plows, scarifier, &c., with perfect ease, and then walked home again to Camden-town. It can ascend an acclivity of one in three, which is nearly walking up stairs, our stairs being one in two. It can back, advance or stop instantaneously, the pinion being shifted from the cogs of the driving-wheel; and the power thus suddenly released is carried off by a separate fly-wheel, which may be used for driving threshing-machines, mill-stones, or other purposes. In fact, instead of a farmer sending for and sending back a six horse-power engine and threshing-machine, requiring in each trip four horses, this machine will move itself anywhere—draw the corn to market, bring home manure, and do the cultivation and work of the farm. The machine can turn as easily as a common wagon, and does not mind a deep furrow or a side-hill.—*Abridged from a Letter from Mr. Mechi, of Triptree Hall, in the Journal of the Society of Arts.*

THE CHINESE SUGAR CANE.

A correspondent of the *Traveller* gives the following account of a new species of sugar cane which has been introduced into this country by the Agricultural bureau of the Patent Office:

Have you seen any account of the new variety of sugar cane—the Chinese Sugar Cane—lately introduced to our agriculturists through the Agricultural bureau of the Patent office? If it is worth half what is claimed for it, the plant is a wonder. First, it produces sugar, the juice having from fifteen to twenty-five per cent. of pure saccharine, varying according to the soil and climate. Then as fodder it will yield twenty-five tons to the acre; cattle, horses and hogs devouring stalks and leaves with the greatest avidity. As a green crop it will produce a great mass of vegetable matter to turn in and enrich the soil. As fodder it will produce two crops in a year, or a good growth of it can be grown for stock by sowing after wheat or other crops have been harvested. It is equally good for cattle and horses dry or green. The juice can be made into a most delicate drink that can scarcely be distinguished from champagne wine. I've not done with it yet. That same juice—set with alum—will color silk a beautiful red. One thing more; after that, taking the leaves to feed stock, the roots to manure the land, and the juice to make sugar, champagne or coloring matter, the refuse of the crushed stalks can be manufactured into an elegant article of paper.

The tops, when cleaned of the seed, make capital brooms, and the seed itself, ground into meal or fed whole, will fatten any kind of stock, from chickens up to elephants.

There! If that is not a catalogue of virtues for one plant, that you can appreciate and admire, then I must say you do not deserve the gifts of Ceres or Pomona, or any of "the goods the gods provide." There is an acre or so of this cane growing here at Washington, on Uncle Sam's own land, near the Capitol, and a prettier sight in a farmer's field cannot be found. It looks something like corn, tall, graceful stalks, and long taper leaves.

One great advantage is, that it will grow in all climates of the Union, from Tampa Bay to Canada.

Another advantage is, that it can be propagated from the seed, as it will ripen all over the Union; while the Louisiana cane has to be propagated by cuttings, taking twenty per cent. of the stalks of the entire crop for the next year's growth. As in the case of all plants propagated by cuttings, there is a constant deterioration, so that in many parts of the South the growth of cane is not over two-thirds as much as it was some years ago, and that on equally fertile soil.

I send you some papers of the seed. This came from China, and was first obtained by a traveller, and tried at the Cape of Good Hope, and then in Europe. China covers about the same parallels of latitude of this country, and sugar is made from this cane in all parts of the empire. Plant this seed, some of it now, and see how large a growth you will get by October. Of course it is pretty late for this year. Enough has been distributed over the country to give it a trial, and in a year or two we shall know more of it. Last year a man in Georgia tried some of it, and being asked how it turned out: "Really," said he, "I can't tell, for it was so good my children and the niggers eat it all up!"

MORGAN HORSE, VERMONT.

Above we give the portrait of VERMONT, a splendid Morgan horse, owned by J. H. Peters & Co., of Bradford, Vt. He is a descendant of the old Gifford and Green Mountain Morgan, and has received the first premium at the Vermont State Fair, and it is claimed on the part of his owners that he possesses the celebrated Morgan blood in greater purity than any other horse now living. His color is dark chestnut. He is fourteen hands three inches high, weighs 1000 pounds, and is six years old this season.

THE WALNUT.—The Walnut was originally in England called the Gaulnut, having been introduced from France. Herbalists used to consider the walnut efficacious in diseases of the head, because it bore what they called the *signature* of the head (i. e., a fancied resemblance;) the outer green skin representing the pericranium, the shell within, the skull, and the kernel the brain. Towards the close of the sixteenth century, walnuts were found more effective than cannon balls in the city. Amiens was besieged by the Spaniards, who were then in arms to oppose the accession of Henri Quartre to the throne of France. A small number of Spanish soldiers, disguised as French peasants, with a cart laden with sacks of walnuts, came to the gate, and asked admittance to sell their walnuts. On the gate being opened for them, one of the sacks which was purposely left untied, fell (as designed) from the cart, and the French guard, busying themselves in picking up the scattered walnuts, were attacked by the disguised soldiers; then a party of Spaniards, who were at hand in ambush, rushed forward, surprised and took the town.

THE CALIFORNIA FARMER.—This paper is a fair type of Young America. Born and nurtured in that young State where the trees grow up through the clouds,—and how much farther we have not been up to see,—it has got to be a young Hercules even in its "teens." And yet strong as it is, its great heart beats in deep sympathy with the suffering and distressed. We advise the returned Californian, if he wishes to learn of the land where he gathered his gold, or where he "saw the elephant," to subscribe for the *California Farmer*.

THE OHIO VALLEY FARMER is a new paper published at Cincinnati, by B. F. SANDFORD, Esq. Number four is before us, and is filled with useful matter, well printed.

For the New England Farmer.

PASTURE GRASSES.

The subject of improving our pastures is receiving much attention, and is one well deserving of much more consideration than it has yet received. In our natural pastures, from four to six acres are required for the pasturage of one cow. In pastures properly prepared, half this number of acres is found sufficient. Indeed, many instances may be named, in which one acre has yielded an ample supply to a cow for five months. But most of our pasture lands are of such a character, that we can never hope to reach this standard. Land that will feed one cow per acre, will yield from one to two tons of good hay, worth from twelve to twenty dollars. This is too expensive pasturage. The land is worth more for hay or other crops. Some years ago, I pastured a cow upon an acre of intervale land, and she did well. But the land would have yielded a ton and a half of good hay, worth fifteen dollars standing. Cows were pastured in the vicinity for 7 or 8 dollars per year. This was not good economy. It was merely a matter of convenience. But if our pasture lands can be made to yield double the amount of feed they now do, the advantage must be too obvious to need a word of comment. Our native pastures contain from twenty to forty kinds of plants. Many of them are little better than worthless weeds. Some of them contain so much bitter extractive matter, that cattle will not eat them. Others are so dry and tough that cattle will not eat them, so long as they can find anything green and succulent. These various grasses arrive at maturity at different seasons of the year. This is a circumstance of great importance—and shows the necessity of having a variety of grasses in a pasture that is to be fed during the whole season. Some grasses, as the meadow foxtail, the orchard grass, the meadow fescue, the herds grass, the sweet vernal grass, and the brome, put forth early and are productive in May and June. Others, as the oat grass, the dogs-tail, the various meadow grasses, and red and white clovers, and the smooth fescue, yield most feed in the summer months. The various bent grasses, the wheat grass, the birds foot clover, and some others, are green and vigorous in the autumn. By a mixture of these various grasses, a green and tender herbage is furnished through the season. This is seldom or never done in artificial pastures, where but two or three kinds of grass are sowed. The various grasses and plants on which cattle feed, possess very different properties. Some contribute more to the production of fat. Others yield more milk, while others furnish in larger quantity the bone-making materials. Others again have properties by which they affect the various glands of the body. Some promote the secretion of urine, others the bile, others the saliva. When obtained in due proportion, they promote the health and vigor of the animal. The finest natural pastures contain about twenty kinds of valuable grasses, some one or more of which is in a green and thriving state every month in the season, from early spring till late in the fall. The spring grasses are, the Alopecurus Pratensis, (meadow foxtail,) Phleum Pratense, (meadow cat's tail or herds grass,) Anthoxanthum Odorato, (sweet vernal grass,) Dactylis Glomerata, (orchard grass,) Festuca Pratense, (meadow fescue,) Holcus Avenaccus, (tall oat grass,) Solium Perenne, (rye grass,) Bromus Arvensis, (field brome,) and the Poa Annua, (annual meadow grass.)

The summer grasses are, the Cynosurus Cristatus, (crested dogstail,) Poa Trivialis and Poa Pratensis, (rough and smooth stalked meadow grass,) Festuca Duriasculus, (hard fescue grass,) Trifolium Pratense Perenne, (perennial red clover,) Trifolium Repens, (white clover,) and the Festuca Glabra, (smooth fescue.)

The fall grasses are, the Agrostis Vulgaris, (the various red tops,) Triticum Repens, (creeping wheat grass,) and the Lotus Major, (birdsfoot trefoil.) Some of these are annual plants, that is, they arrive at maturity, drop their seed and die in one year. Others are biennial, or require two years to attain maturity, and then die, like winter rye and wheat. Others are perennial, that is, spring up from the root every year, for many years in succession. Where pastures abound in worthless grasses, the best remedy, if the nature of the land admits it, is to plow and cultivate two or three years, with some hoed crop—by which they will be killed out. Sometimes the larger and more vigorous grasses may be brought in by means of plaster or ashes or ground bone or compost spread upon the surface. These grasses thus stimulated, will attain a rank growth, and choke out the less valuable and sour grasses. Harrowing old pastures with a sharp harrow, and sowing them with oat grass, herds grass, or red and white clover, and dressing them with plaster or bone dust, will often succeed in bringing in a much larger and better growth of feed, and is money and labor well laid out. Dry plains, that yield but little grass, may be greatly improved by this treatment, applied to them in August, so that the grasses may get well rooted before winter. The late excellent Daniel P. King, of Essex county, had a tract of light, sandy plain land, which he brought into good condition, by plowing it in the summer, and applying a dressing of compost manure, and seeding it down with different kinds of grasses. He usually took off from one to two tons of hay, the next season—and then pastured three or four years, and repeated the same process. He was highly satisfied with the result of this treatment.

R.

MOLE CRICKET.

No insect of the cricket kind is so extraordinary, in its appearance and habits, as the *acheta gryllotalpa*, commonly known as the mole-cricket. The color is of a dusky brown, and at the extremity of the tail there are two hairy appendages; the body consists of eight scaly joints, and the thorax is covered with a very hard and thick shield. But a most curious peculiarity of this insect, from which it received its name, is the form of its fore-feet, which spread out precisely like those of the mole, are strong, webbed and hairy, and terminate in separate claws. This curious insect is much larger in Europe than in this country, and much more troublesome and annoying. It often undermines the banks of canals, and destroys extensive fields and vegetable gardens, by devouring the roots of the plants, causing the tops to wither and die. It generally runs backward, and is said to burrow faster even than the mole itself.

Gardeners specially detest this insect, as in a single night it will run along a newly-sown furrow, robbing it of its entire contents; for nothing can es-

cape it, as its legs are so formed that it can with ease penetrate the earth in any direction, above, beneath, before, and behind. It seldom ventures above ground during the daytime, and the night is the time for its depredations.

These insects prefer moist meadows, and the banks of rivers and small streams. They excavate beneath the surface a chamber about the size of a small hare's egg, carefully smoothed and rounded, where are deposited a hundred or more eggs of a dusky yellow color. The eggs are hatched in about a month; the young resemble the parent in everything but the wings, which are wanting; at this stage they are soft, of a light color, and very small. They are very careful of their eggs, and the passage leading to the cell where they are deposited winds in various directions; besides this precaution, the anxious parent stations herself above to watch it. There is a certain black beetle which often attempts to get at the eggs to destroy them, but the watchful parent seizes the beetle from behind and bites it asunder.

This insect, although so troublesome in many countries, causes very little trouble in this, where it is very seldom seen. We know of but two specimens that have been taken anywhere in this neighborhood—indeed, they are the only ones we have ever seen—one was captured by Dr. S. A. Cooley, in Hartford, Connecticut, and is preserved in our own cabinet of entomological specimens, the other was also taken in Hartford by Mr. Henry A. Goodwin, by whom it is still preserved. The last mentioned is a remarkably fine specimen, and was captured during a severe shower, which brought it out from its place of retreat, as these insects are remarkably fond of moisture, and can live almost as well in water as out of it.

For the New England Farmer.

HISTORY OF THE SWALLOW FAMILY.

No. 2.

BY LEANDER WETHERELL.

Having invited attention to some of the habits of the barn swallow in a former article, it is proposed, in continuation of the subject, to call the attention of the reader to the Cliff or Republican Swallow, its history, and some of its habits.

The Cliff, or Republican Swallow, *Hirundo fulva* of Vieillot and Audubon, *H. Lunifrous* of Say and Richardson, was little known here until quite recently. Audubon remarks that he first saw the species at Henderson, on the banks of the Ohio, 120 miles below the falls, in the spring of 1815. "It was," says he, "an excessively cold morning, and nearly all were killed by the severity of the weather. I described it, and called it *Hirundo Republicana*, in allusion to the mode of their association for the purpose of breeding. These specimens were lost, and it was not until 1819 that I was able to replace them. Visiting Newport, Ky., there, in the immediate neighborhood of Cincinnati, my ears were saluted with the chirruping of my long lost strangers." Maj. Oldham, of the U. S. Army, informed A. that they first appeared there in 1815, and had appeared regularly, about the 10th of April, ever since. They had, at the time of this visit, fifty nests completed, and several in progress. Until the females began to sit, they all roosted in the hollow limbs of the buttonwoods, on the banks of the Licking river, the males only resorting thither, while the females were sitting. They not unfrequently attach their nests to rocks overhanging rivers, hence the name, Cliff Swallow.

This species of the swallow family was noticed by Vieillot, in St. Domingo and Porto Rico, in large flocks, about the middle of May; the year is not given. A writer claims, (name lost) that it was seen in Dennisville, Me., in 1795. The late Prof. Zadock Thompson says, a solitary pair first appeared at Whitehall, the south end of Lake Champlain, in 1817, and soon after, they appeared at Randolph, Richmond, and other places. Chief Justice Shaw says, that he saw it at the White Mountains, in 1816. Some account is given of its habits in Long's expedition to the Rocky Mountains. Say observed it in great numbers in the Rocky Mountains, in 1820. It appeared in various places in New York about this time. In 1824, the celebrated De Witt Clinton sent a description of this bird to the Lyceum of Natural History, in New York, calling it *Hirundo ossifex*, afterwards, however, adopting Vieillot's description. The writer first saw them in Worcester county about 1838. They are now very common, and well known to every observing farmer, as they usually build their nests under the eaves of the roofs, occupying nearly the whole space from one end of the barn to the other—numbering fifty nests or more, resembling retorts used by the chemist.

Being extremely desirous, says Audubon, to settle the vexed question respecting the migration, or supposed torpidity of swallows, I embraced every opportunity of observing and examining their habits, carefully noting the time of their arrival and disappearance, and recording every fact thus gathered from personal observation. Observation taught me that migratory birds, removing farthest south, depart first; and by parity of reasoning, those that remain longest, return earliest in spring. These remarks were confirmed by travelling to the southwest with the approach of winter. In Lower Louisiana, the Warblers, Thrushes, &c., were in full feather and song. The *Hirundo viridis* of Wilson, the white bellied swallow, (*Le Petit Martinet a ventre blanc* of the French of Lower Louisiana) remained about New Orleans later than any other swallow. I saw immense numbers of them during November. I kept a record of the temperature from the 3d, until the arrival of the *Hirundo purpurea*, the purple martin. The following extracts were taken from my journal, after a residence of many years in that country, visiting lakes whither these swallows were said to resort during the season of frosts.

Nov. 11.—Weather very sharp—heavy white frost. Swallows very abundant during the day, a usual occurrence, said the French and the Spaniards. From this date to the 22d, the thermometer averaged 65°; the weather generally a drizzly fog. Swallows flying over the city in thousands.

Nov. 25th.—Thermometer 30° this morning. Ice a quarter of an inch thick. The swallows resort to the lee of the Cypress swamp, in the rear of the city. Thousands were flying in different flocks. Fourteen were killed at a single shot, in perfect plumage, and very fat. The markets were abundantly supplied with these tender, juicy, and delicious birds. Saw swallows every day, but remarked them more plentiful, the stronger the breeze from the sea.

January 14th. — Thermometer 40°. Having seen the *Hirundo viridis* continually, and the *H. purpurea*, the martin beginning to appear, I discontinued my observation. During the winter, many of them retired to holes about the houses, others resorting to the lakes, roosting on the branches of the *Myrica cerifera*, called the *Cirier* by the French. Their aerial evolutions thither toward eve are truly beautiful. When in a few feet of the *Ciriers* they quickly disperse, and settle in a few moments. Their twitterings, and the motion of their wings may be heard during the night. As soon as the morning light dawns, they rise and fly off in pursuit of food. The hunters destroy large numbers of them with their canoe paddles, while perched on the afore-named shrubs.

Thus much has been selected and condensed from Audubon's great work on birds, in order to give the reader some facts going to prove that swallows are migratory birds—thus overthrowing that absurd notion of their hibernating with snapping turtles, serpents, and lizzards, in mud holes.

A few words more from Audubon on the habits of the Cliff, or Republican Swallow, will close this already protracted article. Speaking of their departure after breeding, he says, they all assembled near their nests on the first of August, (this was at Newport, already named,) mounted about 300 feet into the air, and, at ten, A. M., took their departure, due north. At evening they returned, and continued these gregarious excursions until the third day, when, uttering their farewell cry, they took their final departure, returning no more hither, until the following spring-time, when they came as full of joy as ever, their spirit of republicanism not having lost or abated one whit of its ardor. Other members of this beautiful aerial family will be noticed, briefly, unless the editor says enough for the present.

For the New England Farmer.

THE MODEL FARMER.

The model farmer, according to my idea, is one whose physical, mental and moral natures are duly developed and cultivated.

Perhaps these are the qualifications of many other model men, besides farmers, and perhaps, of a model man in general, but at any rate, they are those of the model farmer, and for this reason:

The husbandman, the farmer, the man who makes it his particular business to till the soil, and who obtains his subsistence in this way, enjoys peculiar opportunities for developing his powers, physical, mental and moral. Now it is a fact, universally attested, that exercise develops and strengthens the part exercised, whether it be a muscle of the body, or a faculty of the mind.

The daily avocations of the farmer are such as call into play the largest part of his physical organism. He rarely complains of those numberless ills that arise from a want of proper exercise. Health and strength are his in a remarkable degree. Brought up to subsist upon hearty and wholesome food, to reject dainties and delicacies, as affording but little nutriment, and intended only for the gratification of a morbid appetite, he becomes vigorous, and capable of an endurance which the city-born and city-fed gentleman knows not of. He reaches manhood, not prematurely, but after having passed through the full periods of childhood and youth. He has not been forced to maturity, and so does not suddenly sink into decay, and after dragging out a few years, with one foot in the grave, all at once thrust in the other and settle out of sight. But, taught from the first to battle with obstacles, to subject himself to exposure, and deny the cravings of appetite, he has become hardy and athletic,

"His massive limbs are strong and struggling."

He descends the downward slope of life, gradually and peacefully, and having accomplished his mission, the messenger comes and takes him, still toiling, from his post.

But if the farmer enjoys peculiar opportunities for developing bodily strength and activity, his occasions for promoting mental growth are none the less peculiar. It might appear, upon a casual observance of the subject, that other walks in life present more frequent and better opportunities for cultivating and enlarging the powers of the mind. But where, among the pursuits and callings of men, will you find such chances for the observation and comparison of facts, for theorizing and speculating, for making discoveries, and exercising the power of invention? Where, too, will you find such difficult, and at the same time interesting problems for solution, as the farmer has constantly before him? He, of all others, has opportunities for exercising discrimination and judgment, in training the inferior natures of plants, and animals, which fall to his charge. The right discharge of his duties demands deep thought and careful reflection.

Who is the most successful cultivator of the soil, he who pursues a routine of action that somebody in a past age, under entirely different circumstances, originated, or he, who considering his own means and resources, strikes out a system which his judgment dictates as the one best suited to his present condition and wants?

The true husbandman will study his soils, and learn what elements they possess, what seeds are best adapted to them, and how he can secure the largest yield at the smallest expense. And does this require no exercise of the mental faculties?

Many other persons are, in a measure, restricted to the study of printed pages, and have not access to the book of nature, cannot peruse those "books in the running brooks," nor drink in knowledge from the fountain head.

Here is an advantage, which the true husbandman will not fail to improve. But he is by no means wholly confined to the study of nature. There are hours of relaxation from bodily toil, rainy days, and long, winter evenings, which our model farmer will employ in gathering from books the experience and opinions, both of his predecessors and contemporaries. Carefully digesting these, and combining them with the results of his own observation, and afterwards practising them, he will attain a superiority over his less diligent and studious neighbor. But his advantages cover a wider ground still. Not only for physical and mental improvement does he possess peculiar opportunities, but for moral also. Who, like him, can behold so many manifestations of the Father's goodness? Whithersoever he turns his eye, he sees life gushing and exuberant. The little songsters of the wood, the many insects that swarm the grassy meadows, the "lowing herd," the "finny tribe," springing sportively from their

native element, all meet him as he goes forth to his labor in the morning, or returns home at nightfall, and tell him of their gratitude to God for life and its joys. If he possesses true sympathies, he will join in the universal ascription of praise and thansgiving to the Creator of all.

As he considers "all this scene of man," he confesses it a "mighty maze, but not without a plan." He witnesses the unfailing regularity of all the changes in nature. In the "seed-time" he stakes his all on the coming of the "harvest." Counting on the faithfulness of nature, he lays plans, and takes preliminary steps for extensive schemes, which he would not dare enter upon, were nature accustomed to swerve in the least from her uniform course. He sees nature co-operating with him to bring about desired ends. He, if any one, may see the harmony and fitness of things. When he searches for the cause of this wonderful beauty and order, lo! it is God.

Is not then the husbandman peculiarly surrounded by circumstances suited to improve his moral nature? What folly for such a man to repine at his lot, and seek to exchange his independence, and happy seclusion from the vices of society, for the uncertainties of trade, or for pursuits involving a ten-fold greater risk of life and fortune than can possibly pertain to agriculture.

If he rightly estimated his privileges, he would consider himself the happiest of men, and if he rightly improved those priveleges, he would elevate at once, in the eyes of mankind, the labor of cultivating the soil to be the most dignified and ennobling of employments. J. B. K.

March, 1856.

WORK—AN ODE.

BY C. S. PERCIVAL.

There is a giant strong and brave,
And generous as great,
Who for the feeble race of man
Doth early toil and late.
He delveth in the murky mine,
And on the furrowed lea;
And, with his vessels built of oak,
He plows the stormy sea.

The forest falls beneath his axe,
And cities vast arise;
And verdant fields look smiling up,
To greet the smiling skies.
He builds the mansion towering high,
The little cottage near,
And fills to overflowing both,
With all the heart can cheer.

He chains the streamlet to the wheel,
And bids it turn the mill;
He harnesses the iron horse,
And guides him at his will.
His powerful arm defends the weak
Against o'erpowering wrong;
And grateful hearts conspire to praise
The giant, great and strong.

Fair hands have twined a wreath to deck
His rugged brow with bay,
And we, with joy, have met to keep
His festival to-day.
Then farmers, artizans and all
Who scorn your task to shirk,
Come, join your song with ours, to sing
The mighty giant, Work!

For the New England Farmer.

REPORTS OF THE STATE BOARD OF AGRICULTURE.

Mr. Editor.—You have read these reports, and to you therefore anything I may say will not apply. For the past month or so, I have devoted my spare moments to reading the three volumes already issued. Why, Mr, Editor, the very sight of these volumes, as they lay on my study-table, fill me with pride—pride that our good old mother Massachusetts has produced three such *monuments* to the enterprise, industry and progressive spirit of the farmers of the good old Commonwealth. Look at them—the manner in which they are got up—the information contained in them. There are no superior documents issued, either State or national. They are perfect text books for managing a farm in all its details, and a person may take these books, and by reading and digesting their contents, become an accomplished farmer, without other instruction. I have been very much interested in reading the experiments which have been made on the State farm in Westboro'. While as yet there is little or nothing as fairly settled in regard to the application of manures for instance, still, there must in the very nature of things, be some certain and fixed truths come out of them. And for one I regret that the Legislature *just dissolved* acted with such illiberal spirit towards the Board—cutting down its appropriation from $6,000 to $3,000. The wiser course would have been to have added $4,000 to the six—but if the farmers throughout the State approve of this act of their representatives, all right, I have nothing to say, only permit me to *think*, Mr. *Farmer*, that your brothers do not fully understand their interest yet. Just look at the hosts of schemes which are presented to our Hon. General Court every year, asking, and many of them obtaining grants of money, the benefits to the State of which, in comparison to what the Board of Agriculture wish to do on the State farm, for the real good of the farmers—"is as the picked end of nothing whittled down to a point." Ten thousand dollars a year is little enough for such an object, and I will venture to say, Mr. Editor—and with all seriousness too—that in twenty years' time, the State would be the gainer. The fact is, farmers, many of them, not all, wish the State to manage as they do their farms, with a more liberal expenditure of money in the right direction, and both would be greatly benefited.

Individual farmers are not able to carry on their experiments, at least very few; while the good received is for all, high or low, rich and poor; the man of one acre or of a thousand acres. Now the State is abundantly able to do this business; if *all* is a failure, no one feels it, while every *truth* or *fact* brought to light is a public benefit to the end of time. Mr. Editor, I go in for an appropriation of ten thousand dollars a year for five years,—that's too short a time—say ten years, to the State Board of Agriculture, for carrying on experiments in all the different branches of farming, in the broadest acceptation of that term; and I believe that if all the farmers throughout the State could have a copy of these reports, and read them, they would say amen to my proposition. There is altogether too much *theory* abroad in the community, and too few facts and truths. We want the latter, and this the Board are trying to give us.

In conclusion, I once more express my regret at

the short-sighted policy persued by our Gen. Court in this matter. I only hope more intelligent farmers will compose the next one; or at any rate, give as much out of the treasury of the State to advance one of its greatest and most important interests, as to a Female Medical School. I believe every town has a copy of these reports. Gentlemen farmers—get them—read them. NORFOLK.

August, 1856.

RESTORING THE DROWNED.

The great number of deaths from drowning which take place at this season, will give interest to the following new rules for the treatment of persons rescued from the water. They are by Dr. Marshall Hall, of London, perhaps the most distinguished physiologist of the present day, who has investigated the subject of drowning, and established new principles of treatment. He condemns the rules proposed and practiced by the Royal Humane Society, and substitutes the following for the treatment of asphyxia from drowning.

I. Send with all speed for medical aid, for articles of clothing, blankets, &c.

II. Treat the patient on the spot, in the open air, exposing the face and chest freely to the breeze, except in too cold weather.

I. TO EXCITE RESPIRATION.

III. Place the patient gently on the face—to allow any fluids to flow from the mouth.

IV. Then raise the patient into the sitting posture, and endeavor to excite respiration.

1. By snuff, hartshorne, &c., applied to the nostrils;

2. By irritating the throat, by a feather or the finger;

3. By dashing hot and cold water *alternately* on the face and chest.

If there be no success, lose no time, but

II. TO IMITATE RESPIRATION.

V. Replace the patient on his face, his arms under his head, that the tongue may fall *forward*, and leave the entrance into the windpipe free, and that any fluids may flow out of the mouth; then

1. Turn the body gradually but completely on the *side and a little more* and then again on the face, alternately (to induce inspiration and expiration;)

2. When replaced, apply pressure along the back and ribs, and then remove it (to induce further expiration and inspiration,) and proceed as before;

3. Let these measures be repeated gently, deliberately, but efficiently and perseveringly, *sixteen times* in the minute only.

III. TO INDUCE CIRCULATION AND WARMTH.

1. *Continuing* these measures, rub all the limbs and the trunk *upwards* with the warm hands, making *firm pressures* energetically;

2. Replace the wet clothes by such other coverings, &c., as can be procured.

IV. OMIT THE WARM BATH UNTIL RESPIRATION BE RE-ESTABLISHED.

To recapitulate—observe that

1. If there be one fact more self-evident than another, it is that artificial respiration is the *sine qua non* in the treatment of asphixia, apnoa, or suspended respiration.

2. If there be one more fact established in physiology than another, it is, that within just limits a *low* temperature conduces to the protraction of life, in cases of suspended respiration, and that a more elevated temperature destroys life.

3. Now the only mode of inducing efficient *respiration* artificially, at all times and under all circumstances, by the hands alone, is that of postural manœuvres described above.

This measure must be adopted.

4. The next measure is, to restore the circulation and warmth by means of pressure firmly and simultaneously applied in the course of the veins, therefore, *upwards*.

5. And the measure *not to be adopted*, because it tends to extinguish life, is the warm bath *without* artificial respiration.

The measure must be relinquished.

These conclusions are at once the conclusions of common sense and of physiological experiment. On these views human life may, nay, must sometimes depend.

ABOUT DIGGING WELLS.

Editor Michigan Farmer—Dear Sir:—Some time ago I thought of sending you a short article on the above subject, but it had nearly escaped my mind until I saw an inquiry in the last number of the *Farmer* in reference to the best manner of stopping quicksand from flowing in at the bottom of a well.

Now I am not a "well digger," but as I believe I have some knowledge that way, gathered from experience and observation, that may be useful to some, I will endeavor to relate the same for the benefit of all your readers who may be interested.

About ten years ago the coming fall, I hired two young men who were engaged in the business, to dig me a well on my farm, then in the town of Green Oak, Livingston county. They took it by the job to dig and stone and finish up right, and warrant three feet of water, for 24 dollars, provided they did not have to go over forty feet.

From the experience of the neighbors, and the make of the ground, we estimated it at thirty-four feet. I was to furnish stone and timber for curbing necessary, on the ground.

So they commenced, and after throwing out about eight feet by hand, they set up their apparatus for raising out the rest by horse power. This was constructed by simply taking a piece of plank about two feet long, and two inches wide, and setting it up at an angle of forty-five degrees, with the upper end right above the well, and supported with two heavy braces, set up at the same angle, in different directions, and secured with iron pins at the top. Then a notch in the upper end of the plank, and a pulley of about eight inches in diameter, for the rope to run over, with the tub into the well, and a roller at the bottom of the plank for the rope to run under, completed the "machine."

Then they had what is very necessary, a quick, active horse, and well broke, to go ahead and back up at the word every time, without flinching or faltering.

The soil was loose sand, and they chose to curb it all the way down. This was done by splitting

out stuff of oak timber, five feet long, and about six or seven inches wide, and notching them half on one side, and putting them in log-house fashion.

When they came to the water, as was always the case there on the openings, they found an abundance of quicksand. So to stop that out they went to the woods and cut a white oak tree about three feet over, and cut off three feet of the butt, then marked off about three inches thick around the outside, and split it off into pieces like stave bolts, being careful to number them so as to set them up just as they grew; then took them home, set them up, hooped them together—having first chambered off the outside so as to shapen the lower end, then let them down into the well, and drove them down into the quicksand, a little at a time, being careful to keep them to their natural place, dipping out the sand from the inside, and thus settling them down till the top was even with the water.

Thus we calculated we had a foundation as firm as a rock, and as durable as the everlasting hills; for being under water it would never rot out, and the thickness of the staves would prevent them from ever moving from their place. It kept the sand out perfectly, the water came in from the bottom, and after the first six months, was as clear as the crystal fountain. I deemed it good enough to slack the thirst of an angel, should I be so fortunate as to entertain one unawares.

W. O. Houghtaling.

Grand Rapids, Kent Co., Mich.

For the New England Farmer.

SOWING TIME.

Friend Brown:—The Northern States—Maine, Vermont and New Hampshire—should not fail to get in their wheat during the first week of Sept.; Massachusetts should do her sowing by the 15th of Sept., if not earlier. Should any farmer require *reasons* for sowing so early, we answer, and will further submit a wholesome practice for him to adopt.

1. Plow in the stubble (with manure if you have it) of an exhausted mowing field.

2. Plow *deep*, whether it be a tilled or mowing field.

3. Soak the wheat over night in salt pickle, to destroy insects, and skim off foul seed; see that no chess is in your seed wheat. It resembles the seed of twich grass.

4. Rake the seed with ashes and lime when wet, and it will come up in three to five days.

5. Sow a bushel and a half to three-quarters to the acre.

6. Cultivate in, three inches deep, with a horse plow, or cultivator.

7. If you have no manure, sow ashes, or ashes and lime, upon the field, and cultivate in with the grain.

8. Let this work be done the first and second week in September.

Early sowing, and deep planting, that the roots get well imbedded, are positive proofs against winter-kill or clayey soils. To wait till the corn or potato crop is taken off in Oct., then sow wheat, and slightly harrow in, gives but a meagre chance for the roots to fasten themselves against the attacks of thawing and freezing, called "winter-kill,"—thus, being thrown out to die.

Two weeks growth gained in autumn is two weeks gained in Spring—and most important of all, *two weeks gained upon dog-days*, with their rusting, blighting effect. Could it be said to every New England farmer, and the advice heeded, sow three acres of winter, and two acres of spring wheat, annually, for three years, and I am sure it is no exaggeration to say, they would all bread their families, and have grain to sell.

What necessity, the past two years or more, for action! Does it not continue? Can your farmers afford to buy flour at the rate of two-fifty to three dollars a bushel for wheat, when they can produce it on every farm in New England, at one dollar or less, which will pay better than any other crop at that price? I had resolved never to trouble you further upon this subject. I have had no motive, but to benefit the farmer; and to your excellent paper, as the exponent of my views, I am much indebted.

The Western farmers can see no reason, they say, why wheat cannot be grown with you as successfully as other grains, and express *surprise at your apathy*, but while you are good *paying customers*, they would like the privilege of feeding you from their own granaries. Respectfully, H. Poor.

New York, Aug. 25, 1856.

Remarks.—We had commenced an article on the subject discussed by Mr. Poor; but his is so directly to the point, and so perfectly expresses our own views, that we are happy to give him the preference. Take his advice, gentlemen, you will find profit in it.

For the New England Farmer.

GIVING MEDICINE.

If Dr. J. C. Jackson, whom you quote in your paper of Aug. 16th, is correct, our medical men, it seems, must either be very greatly deluded, or guilty of the most "outrageous knavery." Now the famous Dr. Samuel Johnson is often quoted as saying, "every sick man is a rascal." If, then, it should turn out that all who give medicine, and all who are sick and take it, are either outrageous knaves or rascals, the conclusion by people of good sense must be that there is no want of bad men in the world.

Now, sir, I am an old school physician; was bred such, and have practised as such more or less for thirty years, and yet I am ready, or almost so, to endorse you and Dr. Jackson both, if you will allow me to change one word in the doctor's statement; I wish to substitute "men educated," for "deluded." I confess, I do not like the razor the doctor shaves with—it is rather harsh; but then, he does not shave much too closely.

You quote the elder Dr. Jackson, in support of what you regard as a somewhat modified, or less ultra view than that of the sage of Glenhaven.—You might have quoted his son, whose life was written by his father, and doubtless correctly written. And Boston has at this moment in it other eminent medical men, who, apart from all bitterness of language or censoriousness, are not very far from the same "platform." It has in it at least one respectable medical institute—that of Dr. Brown, at 20 La Grange Place, where all active medicine is repudiated, and always has been, and the success of

that institution for the last year will compare favorably with that of any other in the known world. The two oldest and wisest physicians of Cleveland are—or were three years ago—of the same opinion. One of them absolutely refused to give any more active medicine, and the other only gives a little. I could mention many more such men. In truth, as you justly intimate, the idea of avoiding medicine is fast gaining ground, and I, for one, am heartily glad of it.

I will not, indeed, say with the Glenhaven doctor, that "no living creature was ever cured by it," (medicine.) It is true that in a certain physiological sense, no one ever *was* cured; but this is not Dr. J.'s meaning. He is using customary language. I will say, however, that so far as I know, no one ever was *so well* cured (I do not say so quickly) by medicine as without it. There is a great deal in curing people well. Sumner was being cured, it was thought, but Dr. Perry will tell you, that when he found him, he was far enough from being in a way to be *cured well*.

In short, I am glad to see this subject up in your paper; it is one of great practical importance to a world that dearly loves to be drugged and dosed.

CORRECTION.

In my "Word of Caution," in your paper of the 16th, I made a mistake, as I now see. Messrs. Parsons & Co. did not say they had forbidden Mr. S. to use their name in the way he did; but they told me, in their last communication, that he *ought* not to use it in such a way. I may also add, that those gentlemen appear to think Mr. S. a fair man, after all! I am sorry to see such good men as they are mistaken.

LARGE TURNIP TOP—PERHAPS.

I have in my garden, a Peruvian turnip, the circumference of whose top measures from seventeen to eighteen feet. The size of the tuber is not remarkable, not over a foot, I suppose, in circumferance; and as I am not much of a horticulturist, perhaps the top still is not so remarkable in the eye of your readers as of myself. W. A. ALCOTT.

DESTRUCTION OF WEEDS IN PAVED PATHS AND COURTS.—The growing of weeds between the stones of a pavement is often very injurious, as well as unsightly. The following method of destroying them is adopted at the Mint in Paris and elsewhere, with good effect. One hundred pounds of water, twenty pounds of quick-lime, and two pounds of flour of sulphur, are boiled in an iron vessel; the clear part drawn off, and being more or less diluted, according to circumstances, is to be used for watering the alleys and pavements. The weeds will not reappear for several years.

This plan will prove most effectual, but remember that the liquid will be death to the box or other plants upon the borders of such plots or paths, if it be allowed to reach the roots.—*Am. Ag.*

FRUITS AND FLOWERS.—J. S. C. will find *Breck's Book of Flowers*, already issued in a revised edition, and *Downing's Fruit of America*, a new edition of which will soon be published, the most valuable works on those subjects. For sale by J. Q. A. Warren, 119 Washington Street, Boston.

For the New England Farmer.

FATAL DISEASE AMONG HORSES.

FRIEND BROWN:—I have recently lost a very valuable mare by some disease unknown to me, or to any who saw her while sick. My object in this communication is to call public attention to the matter, as mine is the third horse that has died within a few days with similar symptoms, in this town.

It seems to me to be necessary to give you a full account of her treatment, living, &c., for the past few months, in order that you or your readers may judge of her condition for themselves. She was turned to pasture about the 15th of May, and was not taken out until July; she had a colt on the 24th of May; her keeping has been the best of pasturage, without grain. I used her to cart my hay, but that all lay within one-half mile of my barn. She has not been harnessed in a carriage more than five or six times within the last four months, and then not driven more than two or three miles at a time. She was in the best flesh, and had the sleekest and most shiny hair that I ever saw a mare have that suckled a colt. She was turned out in the morning, apparently as well and lively as ever she was, and within fifteen or twenty minutes, returned, with her own accord, to the shed, and was then discovered to have lost the use of her legs to such an extent that she could hardly walk; she threw up her head and snuffed a few times, then fell to rise no more. After she fell, her legs were stiff and cold, her head and ears were very hot, but she lay without any apparent pain until she died; she appeared to be conscious as any beast, for at times she would whimer for the colt, and would look up when called by name; she lay in this condition for about eleven hours, then died. We rubbed her for two or three hours and bathed her in white lye, attempted to bleed her, but the blood was so thick (and very black) that it would not run.

I have a faint recollection of reading in some paper of a disease that was prevalent in Indiana, that carried off every horse that was attacked with it within twelve hours after the attack, if a certain medicine or course of treatment was not pursued, all of which I have forgotten. J. B. FARMER.

Concord, Aug. 23, 1856.

REMARKS.—The mare spoken of was one of the best animals in Middlesex county. Yesterday, the 24th, we were called to see another horse, in the same neighborhood, attacked in the same way, and presenting the same symptoms that appeared in Mr. Farmer's mare. They are few, and are weakness, or giddiness, indicated by a staggering gait—coldness of the extremities, some pain, though apparently not severe, with a continual pushing out of the head, and drawing both lips away from the teeth; the pulse is weak and slow, and an entire loss of appetite, but there is perfect consciousness.

We have heard of eight or ten deaths by this disease, and fear that it may become quite prevalent. What shall be done to arrest it? In the case of the horse which we were called to see, we recommended gentle, but continued rubbing, and a pint of castor oil. Enough of this not being at hand, a por-

tion of sweet oil was added, and the dose administered. The next morning the horse was greatly relieved, and justified the hope that it would recover.

P. S. — Since writing the above, we learn that the horse has recovered, and is again at work. We have great confidence in the treatment resorted to.

FAT MEAT AS FOOD.

The prevailing fashion and taste are against the use of fat mutton and beef. At hotels and private families, the fat meat to which persons are served, is usually left, and the lean only eaten. Those who purchase meat, of course select the lean, instead of the fatter pieces, and butchers, accommodating themselves to the demand, kill all sorts of lean and ill-fed animals.

The losses resulting from this are many. In the first place, it is contrary to public economy, the number of lean animals sacrificed to secure a given weight of meat, being twice as great as would be required, if all the animals slaughtered for food were well fattened. The cost of raising animals far exceeds the cost of fattening them, and therefore a pound of lean meat costs more to the producer than a pound of fat, besides the unnecessary waste of animal life involved. Another disadvantage resulting from the use of lean meats exclusively, is in the fact, that lean meat, whatever the quantity used, will not supply the place of the fat, especially in winter. Food is required for two purposes—one is to supply materials for the growth of the body, and to repair the waste which labor and all our activities occasion; the other use is to supply fuel for the maintenance of animal heat, the amount required for the latter purpose being much greater in cold regions, and in the colder portion of the year. The fat of animals is in many respects, for man, the best and cheapest of all the heat-producing articles of diet. In high latitudes, there is no substitute for it, or possibility of doing without it; and the same thing is true, though not to the same extent, in temperate climates during the winter. Strangely enough, in this variable climate, our diet is made comparatively uniform by fashion and habit, instead of varying with the changes of temperature. In summer, we use too much of carbonacous, or heat-producing food, and liver diseases and various fevers are the consequence; while in winter, a sufficiency of such food is not supplied, and hence the prevalence of pulmonary affections.

Life and health are more involved in this matter, than some imagine. In the last January number of the Ohio *Medical and Surgical Journal* there is an excellent article, that was read before the American Medical Association, by Dr. Hooker, which shows conclusively, that persons abstaining from fat meat, are much more liable than others to lung diseases, and especially consumption; while those who are in the constant habit of using an abundance of fat meat, are almost untouched by this terrible destroyer. Multitudes of facts within the knowledge of every one, are referred to by this writer in support of his conclusions, placing the matter, one would suppose, beyond doubt.

What, then, is the conclusion of the whole matter? Just this:—let farmers see to it that the animals designed for the butcher are properly fattened; let butchers, who have a regard for their reputation, buy only good animals, and let those butchers be discountenanced, who will continue to murder such as are unfed; let consumers use a due proportion of fat meat with the lean, and let the proportion be larger in winter than in summer; and especially, let those who have constitutional tendencies to consumption, learn to eat good fat meat; and if their present tastes are averse to it, let them struggle to overcome this aversion, as though life depended upon it. How much better is good, fat beef, than cod liver oil; how much better it is, to use the beef while you are well, and keep so, than to use quarts of the oil, when it is too late;—and finally, let all those who are interested in the health and vigor of our whole people, use their endeavors and influence to disseminate right views in relation to this important matter.—*Ohio Farmer.*

Coal Locomotives.—After a variety of experiments, A. S. Adams, master machinist of the Boston and Worcester railroad, has now in operation a freight locomotive adapted to burning coal, which seems so well to meet the wants of the road that all the engines of the company, used in drawing freight, are to be altered to the same style. The engine in question, the "Bison," has one of the Delano grates, by which the coal is forced from the bottom up through the bed of the fire. This grate is but 38 inches in length, but by its manner of operation all the gas is consumed and the top of the bed of coal is kept always ignited, no new coal ever being thrown upon it. The draft is also kept good and is never obstructed by clinkers. Careful estimations of the precise cost of running this engine have been made, and it appears that with it for 12 cents per mile a common freight train can be run and make the usual speed. A wood engine to run the same train costs 30 cents per mile. The saving, as will be seen, is very great. The cost of altering a common wood engine to fit it for burning coal is but $150; and as we have before remarked, the Worcester Company have decided to have all their freight engines converted into coalers as speedily as possible.—*Traveller.*

To Dress Skins with Wool or Fur on.—Take two table spoons full of saltpetre and one of alum; pulverize freely, mix them together and sprinkle carefully over the flesh side of the skin. Then roll the skin together and let it remain a few days, according to the weather. Unroll and scrape them with a chip, dull knife, or draw them over a board fence until they are dry, soft and pliable.

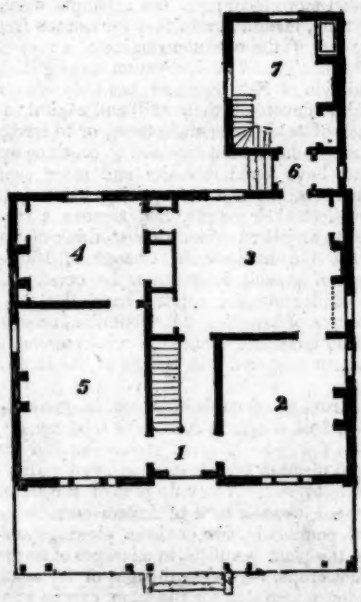
Errata.—In a recent article on the *Milking Machine*, first paragraph, for process, read progress. Last period of fifth paragraph should read:—"The cap fits to the top of the cup, air tight, by its own construction, and also hugs around the end of the teat *so closely as to prevent the air from passing down beside the teat*, but by its flexibility," &c. Sixth paragraph, for flinching read pinching. Signature should be, Kingman.

A SQUARE COTTAGE.

Below, we give another plan of a house from WHEELER'S *"Homes for the People."* Houses upon this plan have been erected in the vicinity of Hudson, N. Y., at a cost of $2,300. We cannot find room for the whole description, so that if any one decides to adopt any of the plans we give, they will find it profitable to purchase the work.

The plan exhibits a building, thirty-eight feet front, and thirty-two in depth, with a wing of one or two stories, as the amount of accommodation needed may require—twenty feet by thirteen.

A wide veranda stretches across the front, and in the centre is the entrance hall, No. 1, with staircase. Upon one side is a sitting-room, No. 2, which is fifteen feet square, and in its rear a dining-room, No. 3, fifteen feet by nineteen, provided with a china closet at one end, and corresponding with it an entry with drawers and wardrobe, leading to a bed-room, No. 4, the dimensions of which are fifteen feet by ten.



PLAN OF THE FIRST FLOOR.

No. 5 is a parlor, with veranda, and with one of smaller size at the side. This room is fifteen by twenty feet six inches. All these rooms are ten feet high in the clear. The wing contains a back entry, No. 6, with outer door and store closet, lit by a small window, and next to this a kitchen, No. 7, with a back staircase to the rooms over (if the wing be made two stories in height) and under this, one to the cellar, which should be under the whole house, or only this portion, as the nature of the soil might permit.

The kitchen contains a sink and cook's closet, and is eight feet high in the clear.

The wood-house, necessaries, and other outbuildings, are intended to be in a distinct erection, connected with the rear of the house by a covered way, or disposed in such a manner as the nature of the situation rendered desirable.

The arrangement of the chamber floor affords four large sleeping-rooms above the apartments below, and two small ones; the latter contrived in front, at the end of the hall, and the other, by a continuation of the same partition across the end of the room, over the dining-room.

The sleeping-room for servants would be in the wing.

The height of the chambers in the main body of the building is eight feet in the clear, with a space in the roof for storage.

The view of the exterior shows that by simple grouping of the necessary details of the building, a liveliness of effect can be obtained which the square form of the place seldom permits. The common defect is in the persisting of country-builders in filling their houses with windows—to the destruction of all of what the painters call breadth, and to the actual discomfort of the indwellers, who show their sense of the existence of

evil by invariably keeping the windows closed by blinds inside or out, but who rarely have the good sense to resist the temptatation to make their house, when building, a perfect glass-case. In the plan under discussion, the whole effect would be destroyed by pairs of windows in each room, and it is strange how constantly, in house after house, the blunder is repeated.

HEALTH FOR CHILDREN.

There are as many children die in cities as in the country, and half the children born do not reach ten years. Such a result could never have been intended by the wise and kind Maker of us all. A different result must be brought about, by the exercise of the reason which is implanted in all parents, and which, if properly cultivated and practised in the lights of our time, would soon work a wonderful change in infantile mortality.

1. Children should sleep in separate beds, on mattresses of straw or shucks of corn.

2. Require them to go to bed at a regular early hour, and let them have the fullest amount of sleep they can take, allowing them in no case to be waked up.

3. Except a rug beside the bed, there should be no carpet on the floor of their chamber, no bed or window curtains, no clothing of any description hanging about, no furniture beyond a dressing-table and a few chairs, no standing fluids, except a glass of water, and nothing at all in the way of food, or plants, or flowers. In short, a chamber should be the cleanest, driest, coolest, lightest and most barren room in the house, in order to secure the utmost purity of air possible.

4. Make it your study to keep your children out of doors every hour possible, from breakfast until sundown, for every five minutes so spent in joyous play increases the probabilities of a healthful old age.

5. Let them eat at regular hours, and nothing between meals; eating thus, never stint them; let them partake of plain substantial food, until fully satisfied. Multitudes of children are starved into dyspepsia. The last meal of the day should be at least two hours before retiring.

6. Dress children warmly, woollen flannel next their persons during the whole year. By every consideration, protect the extremities well. It is an ignorant barbarism which allows a child to have bare arms, and legs and feet, even in summer. The circulation should be invited to the extremities; warmth does that; cold repels it. It is at the hands and feet we begin to die. Those who have cold hands and feet are never well. *Plenty of warmth, plenty of substantial food and ripe fruits, plenty of sleep, and plenty of joyous out-door exercise, would save millions of children annually.—Hall's N. Y. Journal of Health.*

Sea Waves and Sea Sickness.—The old vague account of waves being "mountains high" was well known to be an exaggeration; but we do not think even philosophers were prepared for the statement made at a meeting some years since of the British Scientific Association by Dr. Scoresby, that they averaged no more than 20 feet in altitude, and rarely exceeded 28 feet. The popular impression, principally produced by marine painters, that waves formed valleys thousands of yards across, down the sides of which ships slid as though they were about to be engulfed, seems to have been equally erroneous, as the maximum length of ocean waves, according to the same authority, is 600 feet, whilst in a moderate gale they are only 300, and, in a fresh sea, about 120 feet in length. A moment's consideration of these facts leads to the conclusion that long ships must have a great advantage over short ones with respect to the rapidity with which they make their journey, as it is quite evident that whilst the latter have to perform their voyages by making a series of short curves—much to the impediment of their progress, and to the discomfort of their inmates—the former, by ruling the waves with their commanding proportions, make shorter and smoother passages. As steamers grow larger and larger, sea-sickness must therefore gradually diminish.—*Scientific American.*

For the New England Farmer.

RURAL ECONOMY OF THE BRITISH ISLES—No. 18.

NEW ENGLAND.

Greater ignorance and greater neglect of agriculture has been witnessed, nowhere, than in the United States. This is perhaps strongly stated, but is near the truth. In the South and West, the proprietors held land enough to persist in bad management, for two or three generations; an exuberant soil produced abundant crops, without artificial enrichment, or very heavy labor; when one field was exhausted another was cleared and tilled to poverty in its turn. This kind of farming so impoverished the country in some of the older districts, that the inhabitants were, at length compelled to emigrate to a new region; the employment of more skill and capital on the old farms being out of the question.

In New England, a less fertile soil always demanded more labor; yet few attempts were, for a long time, made and now they are not too frequent, to go out of the common routine of a very restricted cultivation. The inclination among the rural population of New England has been almost universal, to devote all their skill and capital to some branch of trade or manufactures, or to navigation. Those who have been disposed to continue agriculturists, have found it easier and more congenial to their restless and enterprising natures, to sell out, collect their effects, and remove a thousand miles, to a richer region, than to think of improving the old homestead. Change of location or change of pursuit, rather than the employment of more skill and more capital, have, thus far, been the means of bettering their condition, among New England farmers. Hence our rural population has been kept scattered and thin, over the face of the country.

The routine of cultivation has, in general, been this—a field of Indian corn, with a border of potatoes—a few fields of small grains—an old pasture and old meadow of natural grass, and with a stock of cattle to suit. The only part of the farm, well cultivated, was the field of Indian corn, which received, commonly, two or three plowings and hoeings—the plant beautiful, in all stages of its growth. No root crops were ever thought of for animals—no manure provided for the farm, except what was thrown from the barn windows, during the winter

Breeds of cattle or horses were not considered; but such were raised or bought, as happened to be. Indeed, with the exception of the working oxen, if the other stock was kept from starving, during the winter, the farmer was satisfied. In a plentiful year, all that was raised was consumed, and if a little waste was necessary to this end, it was readily resorted to. If there was a large crop of corn, the turkeys, pigs and hens were somewhat fatter; and if any hay was left, old hay was considered poor stuff. It would have been difficult, in any county, to have found ten farmers who looked forward to the blending of the operations of two or three years together, or who had any system of farming or of agricultural economy. How often, even yet, is the question discussed of how much working capital is necessary for a farm, or how many animals it will support, or can be made to support? I do not say that better things have not been attempted, but the experimentalist has, generally, been a warning; and after having made his improvements, of walls, fences, showy barns, and orchards; and after having cultivated his fields without economy of labor and with strict economy of manures and outlays in stock and implements, and without a system, running over a term of years, he has found his produce a few tons of hay, a few bushels of corn and potatoes, and has joined his testimony to that of others, that it was impossible to make anything, by farming, in New England.

Still, I can call before my mind scenes which even our poor New England agriculture has created, on which my eyes have rested, with a delight which no other scene on earth can call forth—the farm-house, looking like a home, shaded by two or three spreading elms, with its large barns, where the grain and hay were stored and the cattle housed, with their large barn doors and ample floors, for husking, and threshing, and for a play-place, for rainy days; with its extensive orchard; its one or two fields of Indian corn, with pumpkin vines interlaced; its small brook-home of trout, running through the green meadow; within sight of, if not adjoining, the noble wood-lot of trees of clean and smooth bark free from moss, such as are found in no other land, that supplied the fuel of the family fire, which from capacious fire-places shone on the manly, honest, cheerful faces, through long winter evenings, of a religious New England household.

Still, though our agriculture afforded many lovely scenes, these did not alter its history. Farmers were generally in debt; when the income of the year failed to meet its expenses, they gave notes to the store-keepers for the balance, until the debt, in a few successive years, swelled to a magnitude that demanded a mortgage, the foreclosure of which swallowed up the farm; while the law of attachment swept off its personal property. Such has been the history of our agriculture.

Agriculture has some disadvantages in New England; our late springs and their June frosts,—our droughts—and our long winters.

The evil of late frost is most felt by the farmer in the cultivation of Indian corn; and against this evil, he must offset the splendid advantage he has in the warm summer, when the plant grows *audibly*, and the late falls.

The effect of our droughts can be entirely overcome by deep tillage, which our soil needs. About six years ago, rather in the way of experiment than of profit, I began to trench two or three acres of land, resolved to trench it five or six years, systematically, mixing about four inches of the subsoil, at every annual trenching, with the upper soil. The natural soil was a gravelly clay loam, of about a foot in depth. By bringing up each year about four inches of subsoil, and mixing it with the upper soil, and bringing it in contact with the atmosphere and manure, the whole soil is now about three feet deep. No drought has ever affected this land. The same thing which I did with the spade, might have been done by the subsoil plow, followed by a common plow, till the soil was sufficiently deep for all purposes.

Our long winters, the farmer must find the blessing in which God has imparted to them, rest and improvement, if not profit.

I do not admit the disadvantage of our soil, for I do not think it, naturally, inferior to the natural soil of England, the best farmed country in the world. Our climate is not as favorable as that of England to the turnip; but Indian corn is a gift of God as valuable to us as the turnip is to England. But we are, for the most part, successful in the culture of the turnip.

The complaint is often made that our New England farmers occupy too much land. This is not the proper form in which the fault, with which our farmers are chargeable, should be stated. The proper complaint is, that our farmers do not employ, in the tillage of their lands, capital proportioned to their acres. Capital, among New England farmers, being limited and more divided than in England, it is expedient that the farms should be smaller, so as to correspond with the working capital. Suppose the working capital to exist in proportion to the acres cultivated, the size of the farm is determined by such circumstances as these, the nature of the soil, the climate, and the kinds of crops prevailing. Branches of agriculture that require a great amount of manual labor, demand a greater division of fields of operation. You are struck with this fact, in the market gardens, in the neighborhood of cities; in the onion cultivation, in the neighborhood of Wethersfield. A larger farm is expedient where a part is fine meadow land, especially, if it be overflowed and mowed by machines, a part in wheat, rye, or oats, with a soil easily prepared for the crop by horse plowing, and a part in Indian corn, cultivated by the plow or cultivator chiefly, and a small part in potatoes and roots. But still larger farming is required, and small farming is an evil in such a case as this, not uncommon in New England; take a mountainous region where the soil is poor and granite, the climate cold, where wheat cannot be cultivated and hardly rye and oats, where, however, grasses and roots flourish, and irrigation is easy from abundant streams, and the slope of the land—here is a region for breeding and fattening cattle and calls for large farming. Again, take a cheese farm, a branch of domestic industry, in which ten or twelve good cows suffice to give employment to a family in the country, without assistance; here you call for small farming; for who would wish the cares and help of a large farm to disturb the interior of one of these humble cottages so clean, so orderly, with an air that breathes peace and industry and happiness. But the whole secret of farming, large and small, be it never forgotten, lies in two words, Capital and Skill. Working capital is one of the chief agents of production. Three kinds of capital conduce to the development

of agricultural wealth. First, *sunk capital*, which is formed, in the course of time, by outlays of all kinds, often through successive generations, for bringing the land into good condition. Second, *working capital*, consisting of animals, implements, and seeds, &c. Third, *intellectual capital*, or agricultural skill, which is improved by experience and thought. In sunk capital—that is outlays through successive generations, for bringing the land into good condition—England is very rich,—New England very poor. Of working capital, England used to deem forty dollars to the acre sufficient; now, she deems eighty dollars to the acre not too much. New England deems that sufficient which the farmer happens to have. I shall not compare the intellectual capital of the two countries, lest I should hurt the feelings of my countrymen, or do injustice to our ancestor's children, who remain in the old home.

I do not claim that the agriculture of New England should be assimilated in all respects, to that of England. I know this is impossible, and I do not regret it. But I do claim, that we should learn, from English experience in agriculture, as we have in manufactures.

England has settled it, that agriculture cannot be conducted with success, without capital and skill. I do claim, that we should not attempt to get along without them, nor consider that our agriculture cannot succeed, till we have tried them. England has settled that agriculture cannot be rich, unless it maintains many animals, sheep, cattle and pigs, which enrich the soil that feeds them. I claim, we should consider this a settled axiom, as true here as there.

England has settled, that it is more than twice as profitable to feed breeds of sheep, on its farms, which are fit for the butcher at from one to two years old, than a breed that is fit for the butcher at from three to four years old; and that it is twice as profitable to raise breeds of sheep, which, when fit for the butcher, will yield from 80 to 100 pounds of net mutton, than a breed which will yield from 40 to 50 pounds. England has further shown, that there are such breeds, and how they may be produced. New England, I claim, must take notice of this fact, and act upon it.

England has shown similar results in cattle. England has shown that her agriculture is rich in crops, and enriched by crops, according as she connects the operations of three or four years together, by a rotation of crops. New England must adopt a system or rotation of her own, or show that England does not produce the results claimed by her system, or that a similar system will not produce similar results here. The English system is, first year, roots; second, barley or oats; third, clover; fourth, wheat. Is there no Arthur Young who can settle ours in New England? If we believe the Quakers, our Arthur Young must leave wheat out of our rotation; for some of that sect have maintained that we have never been able to raise wheat, in Massachusetts, since we hung the Quakers. Our crime was bad enough, and its punishment has been severe enough if it has been the curse of our wheat culture; but I would recommend that we try a somewhat more systematic culture, before we acquiesce in the Quaker doctrine.

England has established breeds of milch cows, which give three or four thousand quarts of milk in a year; and her cows average nearly double the quantity of ours. New England must establish similar breeds, if it would have an agriculture as rich as England's, in milk, butter and cheese. England has shown that an agriculture can not be prosperous in which the animal produce falls short of the vegetable produce; and the agriculture of Ireland and France confirm this truth. Yet the live stock of New England is said to be diminishing.

England has shown what can be done for wet lands and a moist climate, by drainage. How long are our wet lands to have their fertility obstructed by standing water? If our uplands need not drainage, like those of England, they need deep tillage.

England has shown what cultivation with capital and skill can do for a soil not naturally superior to that of New England. Are we to despair of our soil, because it remains sterile, when we have not cultivated and enriched it? England has shown that the love of country life gives vigor to a race, and strength to a nation. Are we to learn the same lesson, after we have wasted our strength in cities, and lost the freshness of our natures, in the dusty paths of gain?

I come now to the most difficult question, which perplexes many minds, and spreads despondency over many households in New England. Can agriculture be made profitable as a business, and followed as an occupation, with a reasonable hope of bettering one's condition in New England? If the farmers of New England should testify that they had found it a profitable pursuit, and state what these profits have been, this would be the most satisfactory settlement of the question. I suppose their testimony generally, would be that they made both ends meet, and but little, if anything more; at least, this would be the general testimony, though in some parts of New England it would be less satisfactory than this. But if the farmers of New England testified that they could not get a living by farming, this would not settle the question that farming could not be made profitable in New England, because it might be they had not adopted the right system, or had not employed capital enough, or skill enough, or had not the best and most profitable breeds of cattle on their farms. Let us approach this question from the English side, and by comparison; and see whether English farming is profitable, and how, and from what causes, and what advantages the English farmer has, and what disadvantages we labor under.

Farmers in England are, generally, tenant farmers; who hire the farms they cultivate, and pay rent. They form, there, a class of men, early educated to farming, and who devote their whole lives to it. These men are not exactly laborers, but are in comparatively superior circumstances, and quite intelligent. Farming is their profession, with all the chances of loss and gain; and if the chances of loss are sufficient to keep their attention awakened, the chances of gain are also sufficient, to excite their emulation. England has many examples of fortunes made by farming, which induce many to become farmers by profession; while, at the same time, it is one of the most agreeable, the most healthy, the most honorable professions in which mind and body can be engaged. These farmers live, for the most part, in a quiet, comfortable style, have their newspapers and periodicals, and produce, occasionally, on their tables, a bottle of claret or

port. When visiting the country in England, one meets with a hospitable reception from these kind and simple families, who have occupied the same lands for several generations. The most perfect order reigns in their domestic economy, and everything in their houses is conducted with that habitual regularity, which indicates long usage.

Now these farmers in England realize from three dollars and a half to seven dollars and a half per acre, as their net income, or profit, after paying their landlords from five to ten dollars the acre, as rent, and after paying about two dollars an acre, as taxes. They have no desire to change their situation, because they get the net profit stated, employing a working capital of their own, on which they also get interest, of about $4000, on a farm of from 100 to 150 acres; whereas, to be a proprietor, the farmer would be obliged to invest from $15,000 to $20,000 in the farm in addition.

Now, I suppose it will be conceded, that where a man is proprietor of his acres, as he is in the United States, as well as the farmer of his acres, and has as much skill as a tenant farmer, the same capital to carry on his farm, and as good a farm, that no mode of farming can compete with proprietor farming.

The wages of a farm laborer in England are from forty to fifty cents a day, probably now fifty. The prices of farm produce in London, to wit, hay, wheat, mutton, beef, milk, &c., do not average higher than in Boston. The price of farming lands in England, are more than double the price of farming lands in New England; but much richer in *sunk* capital.

Taxes in New England probably do not exceed fifty cents an acre, on farming lands; while in England, they are two dollars an acre. Farm laborers' wages in New England are double what they are in England, that is, a dollar a day.

Now, here are the elements of calculation or comparison, to determine whether the same farming which is profitable in England, could be profitable in New England. Observe, I say the *same* farming; for we cannot expect poor farming, without capital and skill, to be profitable in New England, while only good farming, with capital and skill, is profitable in England.

In cost of land, the New England farmer has, I think, the advantage, even after he has enriched it; in taxes, he has the advantage; in markets, equality; in wages, he pays double. Can the disadvantage the New England farmer labors under in the rate of wages be overcome? One would think that a proprietor farmer, in New England, might arrange a system of farming which calls for the least manual labor, and pay a dollar a day for labor, and do more than compete with an English tenant farmer, who pays a heavy rent, heavy taxes, and fifty cents a day for labor.

I can point to many a farm in England, of 150 acres, on which the tenant farmer pays $1200 a year rent, $300 a year taxes, and what are there called good wages, and clears, without much trouble, $600 a year. But here are the elements of his success—not better markets than ours, but a good stock of sheep of the best breeds, early fit for the butcher, yielding 80 to 100 pounds of net mutton, and a good fleece; the best breeds of cattle, of similar qualities, the best breeds of cows and of pigs, his farm cultivated with a proper rotation of crops, with proper proportion of meadow and pasture, the farming not high, but such as the most judicious and economical man would approve. Would such a farm, thus cultivated and stocked, in the hands of a New England proprietor farmer, of equal skill, pay—wages being a dollar a day? If it would yield no profit, then our agriculture is, and is likely to be, in poor condition; if it would yield a remunerating profit, then we may yet have a rich agriculture.

To make more distinct the different results which we should have in New England, if we covered our farms with the best breeds of sheep and cattle, as the English do, that is, breeds of great precocity, and yielding the greatest weight of meat at the earliest age, I make the following statement, which is the result of pretty accurate calculation, and will bear, I think, examination, and make clear that we may have success in our agriculture, if we will imitate those who have succeeded. The markets in England and New England being equal in price for mutton and wool, and allowing what is not true, that we get as heavy a fleece from our sheep as the English do from theirs—for every fourteen dollars our farmer realizes from a flock of sheep, the English farmer realizes from a flock of the same number, thirty-six dollars; or where our farmer realizes fourteen cents, the English farmer realizes thirty-six cents. And in regard to cattle, oxen and cows, where our farmer, from their milk, and meat, and work, realizes $28, the English farmer, from the same number, realizes $36; yet the English farmer never works his oxen. In the one case, the English farmer has an advantage of more than a hundred per cent., and in the other, of about twenty-five per cent. What wonder, if these things be true, that English agriculture is profitable, and our agriculture unprofitable?

Some now living can remember when it was stoutly contended that we could never carry on manufactures to advantage; but time has proved their predictions false. Agriculture is only another and higher branch of manufacturing, carried on by skill and capital, proportioned to the acres cultivated; and when the capital and skill of New England shall turn in this direction, and the love of the country, which is natural to our race, shall return to our bosoms, the present feeling of despair respecting New England agriculture will vanish away.

Agriculture is an art of slow growth, not a science; though science may, and has contributed to its progress, in a degree. In its first stages, agriculture is imperfect and poor, depending almost wholly on the natural fertility of the soil, and poor methods, and not on the skill and capital of man. In this stage it remains, until commerce and manufactures have developed themselves. Then it is found that to feed the cities, and towns, and plains, where manufactures have fixed their seats, agriculture must be developed into an art, requiring skill and capital, as much as any branch of manufacture. If, after manufactures and commerce have been developed in a State, the people have not energy and skill, then, to bring agriculture to a higher development, the whole State languishes, and individual distress, poverty and emigration prevail, and national decay follows. Wise and good men have thus far, watched agriculture in New England, through its primitive stage, in which it relied on the natural fertility of the soil, and as this wore out, have seen the rural population grow thin through emigration,

and by engaging in commerce, and navigation, and manufactures; and these good men have not despaired, but have been diligent in stimulating the agricultural spirit of the people, by organizing agricultural societies, establishing agricultural publications, invoking the aid and patronage of the State, importing the best breeds of cattle, and used every method and endeavor to inaugurate in New England, the second stage of agricultural development, in which skill and capital make agriculture the fruitful mother of harvests and of men. These men have never been wanting in hope, and faith, and patience; and others will see, if they do not, the results of their works. M.

TRAVELING POWERS OF THE CAMEL.

Prof. Marsh, of Burlington, Vt., has recently issued a work on "The Camel: his Organization, Habits and Uses, considered with reference to his introduction into the United States," a subject made of special interest at this time by the recent importation by our government of a number of these animals for the purpose of testing their capacities as carriers in this country. From this work we copy the following:

Mehemet Ali, when hastening to his capital to accomplish the destruction of the Mamelukes, rode without changing his camel, from Suez to Cairo, a distance of eighty-four miles, in twelve hours. A French officer in the service of the Pacha, repeated the same feat in thirteen hours, and two gentlemen of my acquaintance have performed it in less than seventeen. Laborde travelled the distance in the same time, and afterwards rode the same dromedary from a point opposite Cairo to Alexandria, a distance of about one hundred and fifty miles, in thirty-four hours. But the most extraordinary well-authenticated performance of the dromedary is that recorded by the accurate Burckhardt in his Travels. The owner of a fine dromedary laid a wager that he would ride the animal from Esneh to Keneh, and back, a distance of one hundred and twenty-five miles, between sun and sun. He accomplished one hundred and fifteen miles, occupying twenty minutes in crossing and re-crossing the Nile by ferry, in eleven hours, and they gave up the wager. Burckhardt thinks this domedary would have travelled one hundred and eighty or two-hundred miles in twenty-four hours without serious injury. The valuable paper extracted from the notes of General Harlan, and printed in the U. S. Patent-Office Report of 1853, Agriculture 61, states that the ordinary day's journey of the dromedary of Cabul is sixty miles, but that picked animals will travel one hundred miles a day for several days in succession, their greatest speed being about ten miles an hour. Captain Lyon affirms that the mahari of the Sahara will travel many successive hours at the rate of nine miles an hour. The Syrian defoul goes in five days from Bagdad to Sokhne, a distance which the loaded caravans require twenty-one days to perform, or from the same city to Aleppo in seven, the caravans generally taking twenty-five. Couriers have ridden, without change of dromedary, from Cairo to Mecca in eighteen days, while the ordinary camels seldom accomplish the journey in less than forty-five. Layard gives several instances of apparently remarkable performances, but as the distances are not stated, it is not easy to compare them with those recorded by other authors.

A late and apparently credible writer says: "I knew a camel-driver who had bought a dromedary belonging to a sheriff of Mecca, lately deceased at Cairo. This animal often made the round trip between that city and Suez, going and returning in twenty-four hours, thus travelling a distance of sixty leagues in a single day." The performance of the dromedary is rather understated by the writer. The actual distance between Cairo and Suez is eighty-four English miles, and the animal must consequently have accomplished one hundred and sixty-eight miles in twenty-four hours. He remained four hours at Suez to rest, and therefore travelled at the rate of eight miles and four-tenths per hour.

Upon longer journeys, the daily rate of the best dromedaries, though not equal to these instances, is still extraordinary. A French officer of high character in the Egyptian service, assured me that he had ridden a favorite dromedary ninety miles in a single day, and five hundred miles in ten. Mails have been carried from Bagdad to Damascus, upon the same animals, four hundred and eighty-two miles, in seven days; and on one occasion, by means of regular delays, Mehemet Ali sent an express to Ibrahim Pasha, from Cairo to Antioch, five hundred and sixty miles, in five days and a half. But the most remarkable long journey on record is that of Col. Chesney, of the British army, who rode with three companions, and without change of camel, from Basrah to Damascus, a distance of nine hundred and sixty miles, in nineteen days and three or four hours, thus averaging fifty miles per day. the animals having no food but such as they gathered for themselves during the halts of the party. These dromedaries averaged forty-five steps a minute, with a length of step of six feet five inches, giving a speed of about three and one-third miles the hour.

GRAVELLING MEADOW LANDS.

Many persons occupy portions of the autumn in reclaiming or improving their meadow lands, and among other modes resorted to, they apply to them gravel or sand. This has a favorable effect in several ways. It settles into the mud and makes it porous, attracts heat, and supplies silica to the grass. A few loads per acre will sometimes effect an astonishing change.

The operation, however, must be judiciously performed, in order to secure favorable results. The sand or gravel should be spread evenly, and a small quantity only, in a single year. A half inch in depth, at one time, and a similar amount applied each year for several years, would be of much greater service than the whole amount applied at once. Indeed, some meadows are ruined for all present purposes by the application of too much sand or gravel at once. The sand presses heavily on the mud of the meadows, excludes the sun and air, and makes the whole as cold and inert

as a dead lamb's tongue. Green mosses and fungi soon appear on the surface of the sand, and all other vegetation is forbidden to approach. The meadow has lost its activity, and never will recover it until sufficient time elapses for water brush to spring up, or until the meadow is plowed or bogged and the sand mixed with the mud below.

For the New England Farmer.

HOP RAISING, A FICKLE BUSINESS.

Messrs. Editors:—There are causes, and effects which follow causes, that may be felt years after causes cease to exist. There are causes which lead to prosperity and those which tend to adversity. Hop-raising and hop-speculations, like lotteries, have made some wealthy and a larger number sorry. There is no production growing out of the earth liable to such fluctuations in prices as hops. Whoever raises hops, to sell, runs a gambler's risk, he has no assurance whether he shall realize fifty cents a pound, or lose his labor. Perhaps there was no town in this Commonwealth more celebrated than Wilmington for producing hops at an early period. In the latter part of the last century, almost every farmer in town had a hop-yard, and as hops grew in demand the raisers prospered, and from an almost utter destitution of money, that fascinating tempter began to circulate in such sums as to produce a giddiness in some of the heads of those who had been unacustomed, only occasionally to have their organs of vision gratified by such a rare visitant. The flow of money into Wilmington from the sale of hops, was soon promulgated in the neighboring towns, and the hop excitment arrived at such a pitch that men might be seen from all directions bound to Wilmington to purchase hop-roots which afforded an other source of profit to the producer. As a consequence of ready sale at high prices, the hop fever became epidemic in all the neighboring towns, and finally extended to all the New England States and New York, till that business, like every other profitable business, was over-done, and the production was vastly greater than the demand, and hops fell from twenty-five cents or more, down to four cents a pound, or no sale, which made many a speculator regret his temerity. After losing their labor, and more besides, for one or more reasons, the farmers in their wrath would plow up their hop-yards and put their ground to a better use. When prices were high, yards would be multiplied; when low, they would be torn up. This course of action and reaction was followed by continued fluctuations from the highest prices to the lowest, or no sale at all. No produce ever sent into market has disappointed the expectations of farmers more than hops, nor no species of traffic ever entered into, proved more disastrous than hop-speculations.

Now, let us view other consequences. It is well known that hops are not a necessary of life, but used mostly as a luxury. At the time of the hop mania, hop-raising was the prominent subject of conversation. The merino or hen-fever never had a harder struggle to form a crisis than the hop-fever. Most of the farmers directed all their energies to the production of hops, which required all the manure that possibly could be robbed from the other crops, and of course but scanty crops of grain, English hay and meat could be obtained from a cheated soil. Hops, like other bulky crops, exhaust the soil, they make no return to it in the shape of manure, and every tun transported from the town was reducing the value of the soil. Thus this delusive money-making business went on till most of the land would neither produce hops or any other decent crop. Scanty crops of English hay compelled the cattle to live on meadow hay, and who ever saw good butter or beef produced from meadow hay? Manure made from it was but a feeble restorative to land growing poorer every year under the exhausting system of hop-raising, and to this day the exhausting effects of growing crops which left no restoratives to sustain the soil are visible.

For a few years at the close of the last and the beginning of the present century, very few country towns of its size could boast of as much money brought in for produce as Wilmington, but this was done at a proportionate reduction of the value in the farms. The excitement produced by this sudden flowing in of wealth seemed to overpowe. reason, paralize all inducement to regular industry, and make the wages of regular labor look like a "very little thing," and men whom we should have as little suspected, as the deacons of the Scottish covenanters, entered into hop speculations at the neglect of good trades, farms and every other pursuit of honest industry and plunged, in thoughtless hast, into the dazzling phantoms which promise wealth, till the last dollar was mortgaged and the character weather-beaten and looked upon with suspicion where veracity was required as a test. In consequence of money becoming more plenty, new ideas began to crowd out old ones, new desires to form, and new views and transports awakened in the craniums of those which we had supposed were proof against all sorts of changes and innovations. The most of the fortunes made so suddenly by hop speculations were as transient as Jonah's gourd, and I hardly recollect an individual who did not lose a part or all of the property which he had, by patient industry earned before the hop excitement took place; and it is a question in the minds of many thinking people whether Wilmington, as a town, is a dollar the richer for there ever having been such a thing in the world as a hop.

I was personally and practically engaged at hop-raising from 1792 to 1797, and though young, the impression of hop-raising and hop-gambling was indelibly stamped on my memory in such a manner that it will probably be one of the last things I shall forget. Silas Brown.

North Wilmington, May, 1856.

The Curculio.—An old friend, Mr. John Dunlap, at Chester, N. H., writes us that the stings of the curculio on fruit may be prevented by placing coals on an old frying pan, and when under the tree sprinkle sulphur on them so that the fumes will pass up and touch the fruit. He says this can be proved by an "ordained minister."

Rural Economy of the British Isles.—The attention of the reader is called to the last of this series of articles, in another column. It is entitled "New England," and is a sort of summing up of the general argument of the series, or a comparison

between the agricultural practices of Old and New England. We are greatly indebted to the writer for the interest and value they have given these pages, and part from him with sincere reluctance. They have been widely copied, and their clear, practical and vigorous style, has undoubtedly arrested the attention of many, and given them new views of the *importance* of agriculture, as well as the true way in which to reap *its profits*.

For the New England Farmer.

THE RICH FARMER vs. THE POOR FARMER.

It is not my intention, in the few brief remarks I have to make under this head, to array these two classes, the rich and the poor, against each other, but simply to show some of the advantages which the rich farmer has over his brother of moderate means. This is the sense in which I use the term, poor farmer; not intending to convey the idea that he does not till the ground as well, and as successfully, according to his means, as his rich brother.

Let us suppose, at the outset, that they both possess equal skill and industry, and, also, an equal amount of land, similarly situated, and alike in quality and condition. On this supposition, let us compare the two together, and see which has the advantage in other respects.

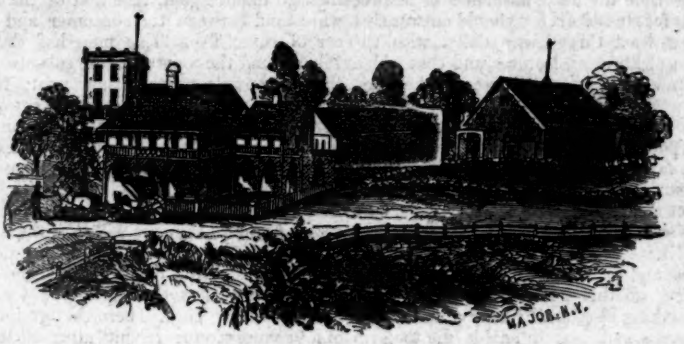
In all the wide world the poor farmer has nothing but his farm and a few miserable old buildings, except a horse, a cow, a pig, a few hens, and, perhaps, a few old fashioned farming tools to work with. This is the whole extent of his resources, if we except his physical strength. With such slender means, he must do his best; and then he will not be able to compete with the rich farmer, who has the needful, the ready cash to do with. The poor farmer cannot procure new and improved implements to work with, or hire laborers, or purchase stock for his farm, or manure to enrich his lands. He needs a team, a cart, a plow, a harrow, and other implements; to procure which, he must either run into debt, or, hire all these of the rich farmer. He has such a dread of being involved in debt, without the prospect of being able to pay, that he resolves, for the first year, to hire all those things which he cannot possibly do without, and which are absolutely essential to his success; and, by the most rigid economy, self-denial and persevering industry, he finds, at the close of the year, that, besides supporting himself and family, and paying all his incidental expenses, he has enough left to purchase a team for the ensuing year. By pursuing this course for a few years, he is able to stock his farm, to purchase a complete set of new and improved farming tools, and, not only to cultivate his land to better advantage, but to produce better crops than before. Having thus overcome the difficulties and discouragements which surrounded him at the outset, he now begins to feel that he has arrived at a position in his calling, in which he stands some small chance, at least, to compete with the rich farmer for the honors and rewards of productive and successful husbandry.

Now, with this account of the condition of the poor farmer, let us compare the condition and circumstances of the rich farmer, and see what great and peculiar advantages the latter has over the former. In the beginning of life, by our supposition, their lands are equal, as well as their skill and industry; but they differ in other respects. There is a great difference in their resources—the one is a rich farmer, the other a poor farmer. The rich farmer has abundant resources of every kind. He has cash enough and to spare; so that he is able to hire any amount of labor on his lands, to purchase the most costly manures, to try experiments of every kind, and to make whatever improvements he desires. His farm is well stocked with the best animals, horses, oxen, cows, sheep, swine, poultry, &c. He has wagons, carts, plows, harrows, cultivators, and all the best implements now employed in successful cultivation. But, were he destitute of all these, he would still be able to procure them, and still have money left for other uses. Such is his inheritance at the outset of life.

Now, will it be pretended by any one, that there is anything like an equality of condition between these two farmers? that the one stands just as good a chance as the other to obtain the highest prize at the cattle show, for the best cultivated farm, or for the greatest crop of any kind, on a given number of acres? This can not and will not be pretended, because all the chances of success are on the side of the rich farmer, who possesses all the means for producing the desired result. I am not complaining of this, I am only stating the fact. I do not know that I would if I could, have it otherwise. Perhaps it is best, on the whole, that there should be some rich farmers who are able to be at the expense of trying costly experiments, and of carrying forward cultivation to the highest degree of perfection.

It seems to be thought by some, however, that the perfection of agriculture consists in obtaining the greatest quantity of produce from a given quantity of land, without regard to the expense. But it appears to me that agriculture is good or bad, in proportion to the return it makes for the capital employed, which consists not of land only, but of land, stock and labor. In those places where land is dear, and labor cheap, the farmer expends much labor on a little land, and renders that extremely productive. The reverse is generally the case, where land is cheap and labor dear. There the capital in land may counterbalance the advance price of labor. As labor commands more money, and money more of the necessaries of life, in one place than in another; so the laborer lives better, and rears a family more easily, in one place than in another. In my opinion, he is the best farmer who reaps the greatest profit from his capital, whether he be a rich farmer, or a poor farmer. In raising large crops of produce, for instance, it is always proper to consider whether the profits are adequate to the expense. It is easy enough to increase the amount of produce by a greater expenditure in labor, and in fertilizing properties. But, with the farmer of moderate means, the question is, and always should be, will it pay? JOHN GOLDSBURY.

TO PRESERVE HERBS.—All kinds of herbs should be gathered on a dry day, just before, or while in blossom. Tie them in bundles and suspend them in a dry, airy place, with the blossoms downwards. When perfectly dry wrap the medical ones in paper and keep them from the air. Pick off the leaves of those which are to be used in cooking, pound and sift them fine, and keep the powder in tight bottles.



SALEM NORMAL ACADEMY OF MUSIC.

The above Institution is situated about 10 miles from Norwich, and 13 from New London, in the rural town of Salem, Ct., and in one of the most pleasant valleys in New London County.

The Institution is designed for ladies only, and the only study taught is music. It was founded by ORRAMEL WHITTLESEY, about 16 years ago and under his auspices it has grown into public favor, and is now justly celebrated as a place where a thorough and practical musical education may be attained. It is retired from the noise and amusements of city life,—has an able board of teachers, and an unique system of instruction, well adapted to secure the purpose for which the school is established. Its usual number of pupils is about *forty*. It is emphatically a school among the farmers. Among the number of its pupils from year to year, I have noticed the daughters of farmers from different States of our Union. These young ladies have gone out from it accomplished musicians and teachers. At the recent anniversary, the graduating class consisted of twenty to whom the examining board awarded diplomas.

The young ladies who received diplomas, remain at the seminary one year. They practice on the piano, or other instruments five hours each day—and study the theory of music about three to five more, and are required to pass an examination in presence of a board of examiners before receiving the honors of the Institution.

Attached to the Institution is a farm of about one hundred acres, which is worked in a scientific manner under the direction of Mr. Whittlesey. Much of this farm is under very high cultivation, and furnishes the school family with every variety of vegetable and fruit in their season.

The expense of a musical education at this Institution is $250. The time required *one year*. Students may enter the seminary at any time, and there are no vacations, but an annual examination in August or September. E. R. WARREN.

Boston, Aug. 30, 1856.

For the New England Farmer.

SHALL I STICK TO THE FARM?

MR. EDITOR:—Believing that you are willing to make all due allowances for the writings of youth, I again venture to communicate with you on the subject of farming; not for the purpose of gratifying any vanity which I may have of seeing my thoughts occupy a place in your valuable journal, but for the purpose of laying before you my objections to farming.

In my former communication, I gave my objections in such a way that you were led to a misunderstanding of them, and consequently your kind remarks did not meet my case exactly; therefore in consideration of this fact, I will now attempt to give them in as clear a manner as possible.

In the first place the returns for labor spent on the farm are so small, that it becomes necessary for one who attempts to gain a livelihood from the soil—being without money and those sciences the knowledge of which are so indispensable to a thorough understanding of the art of farming, it seems to me a stranger might as well hope to find his way through Boston, blindfolded, as for a man to think he can progress in farming, and support a family as he should; especially, if he should have the misfortune to possess a large one—to employ every moment from early in the morning till late at night, in hard, physical labor, allowing himself scarcely a moment for study, unless you might call the perusing of a newspaper study, which, I am pained to say, is a great stranger in many of our farm-houses.

Here, Mr. Editor, is my great objection to remaining in the business in which I now find myself engaged; not because there is too much bone labor, as you seemed to think—but because there is too little mental.

If it were possible for one to start in this employment with so small a sum as you think sufficient, and so divide his time that a regular system

of study as well as work might be to him, you may rest assured, that I, for one, would never quit the farm. Perhaps you will answer this by asking me how much time the poor mechanic or laborer in the city gets for study? If so, I should answer that they can get at least three hours daily, with the assistance, also, of libraries, lectures, and that which is derived from association. Whereas on the farm, the ten hour system is not yet; libraries are not considered as things needful, lectures are few, far between, and poor at that, and associations for the benefit of the farmer, are among the things heard of, but not seen. With such thoughts as these, is it strange that the farmers' boys are restless, and their maidens sigh?

Now that I have given you a knowledge of my situation, likes and dislikes, I shall wait patiently for your advice, whether I had better "stick to the farm," or something else, until I have a knowledge as well as a purse sufficient to enable me to farm as farming ought to be done.

Yours respectfully, A Farmer's Son.

North Bridgewater, Aug. 21, 1856.

EELS AND EEL CATCHERS.

One curious in eels as exposed for sale in the Fulton market, might follow up a portion of these esteemed fish, to Moriches Bay, on the south side of Long Island. There sixty miles from New York, and sixty rods from the Atlantic, in an almost fresh water bay about fifteen miles long, and from half a mile to three miles wide, these wiggle themselves by thousands into the traps set for them. The eel pot is a round basket 20 inches long, with a hinged lid at the top and a hole in the bottom. This bottom runs upwards, as do the bottoms of champaigne and other wine bottles, fraudulently presenting size and space, but sadly diminishing capacity. This cone-shaped base, however, is a part of the trap. In the spring of the year small fish, taken near the Fire Island inlet, (the outlet of Moriches Bay) make bait for eels. In hot weather, the "horse-shoes" are rather the coarse appetizers man offers them. Those, without apology or perceptible hesitation, are chopped with axes into four parts. A pile of these quartered dead being heaped up in the bow, the boat is pushed out for the pots. High stakes set upright in a line, fifty feet apart, sustain the pots, which hang from them under water by ropes. The fisherman pulls up the pot into the gunwale of his boat, flirts open the lid, and if old as Methusaleh in his business, is sure to yield to curiosity, and peak in before he empties it. Out come eels and little fish, and the shelly or unconsumed part of the bait. The hole at the top of the conical bottom lets the eels in. The sides at the bottom, and the bottom's real bottom, (involution worse involved) prevent their getting out. Fresh bait is then thrown into the pot, the lid is quickly fastened, and the trap is dropped overboard. The eels meanwhile glide and crawl about the bottom of the boat in a fashion so snake-like, that a landsman involuntarily lifts his boots from their approach. From stake to stake rapidly goes the fisherman, and empties and resets the traps. This he does twice a day. Forty traps will keep an active man busy during the season. Upon the statement of a grand-child of Neptune, to us made on Wednesday last, (his hands then affirmatively placed on an eel trap,) twenty-five dozen eels a day are the customary catch for a fisherman. These are placed in tank, till a large wagon load is collected. They then go to an "agent," the first of the middle-men who stand between the consumer and the producer of these fish. This man has them skinned. Piled round the operator the eels are stirred into the sand, partly to make them gritty to the grasp, but chiefly we suppose to spoil the proverb of "slippery as an eel." The throat, with one quick gash, is cut through to the skin on the back of the neck, the belly is then slit, and with a nice use of the thumb nails, and an artistic jerk with both hands, that eel's skin is off. It is a marvellously fast process. "Smart" skinners will take the epidermis off thirty dozen in an hour. A cent a dozen is the price paid for this queer labor. The peeled fish are packed while yet wriggling, in ice, and taken by rail to New York. There they go into the hands of a "commission merchant" attached to some market. He sells and pockets ten per cent. of the gross receipts, and remits the balance to the "agent." This one deducts freight, charges for ice, and cost of skinning, then scales off six per cent. from the balance as his commission, and divides the residue among the fishermen. These net for their labor, according to the quality of their catch, and the season of the year, but from six cents to eighteen cents a dozen for the eels.

Three hundred dozen eels, minus their skins, are the ordinary daily shipment from Centre Moriches to New York, by the Long Island road. How many besides are daily sent from all other points in the circle of the north and south shores of the Island, the curious in fish statistics may cypher out. When they have finished, if the atmosphere before them does not undulate and wiggle with skinned eels, as the air waves and vibrates in summer against a heated wall—indeed if all Long Island is not undulating with a snake-like movement towards New York and the Fulton market, those statisticians have only figures of arithmetic in them—that's all.—*Evening Journal.*

To Correspondents.—We must beg the indulgence of correspondents for delaying the publication of some of their articles. Our paper is now so widely extended, and there are so many persons feeling a lively interest in the cause, and desirous of relating their views, or describing their experiments, that even the hurried season of summer and harvest finds us with an unusual press of matter. Articles on "A selection of 12 best varieties Strawberries," on "Wanted—less land or more labor," "Mineralogy," "Lunacy," "Reclaiming Bog Meadows," "Education of Farmers," "Mental and Moral Improvement," "Nuts for a Farmer's Son to crack," "The advantage of small farms," "Influences of clearing and draining on the atmosphere," "Green corn for soiling," "Corn fodder," and many others, are on hand, and for which we hope to find room soon. Short articles usually find a place sooner than long ones. We now have some numbering ten or twelve closely-written pages. The insertion of these would exclude *variety*, which we must give, in order to meet the wants of the general reader.

For the New England Farmer.

FARMING IN WESTERN MASSACHUSETTS.

BY PROF. J. A. NASH.

In the hundred or more towns in Berkshire, Hampshire, Franklin and Hampden counties, there are a few large manufacturing villages, a great many small ones, and still more little, unpretending establishments, where more or less hands are employed. Among the articles manufactured are woollen and cotton goods, whips in quantities sufficient to do as much whipping as ought to be done in the whole country, cigars, more than the whole world ought to smoke, plows, axes, cutlery, cultivators, harrows, steam engines, railroad cars, scythes, arms of all descriptions, tools for nearly all purposes, and too many other things to name, employing a great number of men, and paying such wages as enable them to be good customers to the farmer.

In this same district, there are two colleges, drawing their students mostly from out of the State. There are about five hundred of the college officers and college students, including the families of the former. There are two female seminaries, with at least five hundred persons connected with them, drawing still more largely from without the State bounds. And there are many male and female boarding-schools, of a high order, drawing largely from other States.

Besides these, there are the marble and iron of Berkshire, and the clay beds for brick and tile drains, which employ a large number of men, and yield a large revenue. And, further, this region is well supplied with professional men; and, though the people are considerably industrious, there are here, as everywhere else, some idlers, who nevertheless eat, and we suppose, pay for what they eat.

The farmers of this region, then, have a pretty good array of customers; and there is little ground of fear that they will not continue to have. Our fathers would have drained their swamps, cleared off the boulders from their uplands, and enriched their farms, if they could have seen as many customers at their door. But they could not. Never in their day was there a fair prospect before them, that they would be able to obtain a reasonable price for all they could raise. There was no reason in paying the lawyer fifty cents for a dunning letter in potatoes at ninepence a bushel, or in giving the merchant fifty cents a yard for India cotton, and paying him in veal, at two or three cents a pound. And since labor was higher in proportion to produce than now, I see not how they could have done better than to skim such parts of the farm from time to time, as could be skimmed with the least labor.

They lacked incentives to exertion; and as often as I think of their position, no manufacturing among them, no working of marble and iron, no colleges, seminaries, and boarding-schools, few mechanics, and not an overstock of professional men, I wonder, not that they became rather dull, a little *fogyish*, as we should deserve to be called, were we not to wake up to an appreciation of our altered circumstances, but rather that they retained so much enterprise as they did. No wonder that the old swamp by the barn afforded a lurking place for serpents and frogs. But that after the prices of the past few years, the frogs should peep out of the same holes, is too bad. Everything now goes to assure the farmer that he will have a stable market; not as high, perhaps, as the past year, but high enough to make him a reasonable compensation for his labor. Now, then, he can improve his land with a fair prospect of being the gainer by it. He can borrow money, if need be, with no quixotic hope of being able to pay it, and retain a profit for himself, in the increased value of his farm.

If it be said that the great West will run us down with produce more cheaply raised, the answer is, that we have now a home market, and that it will demand all we can raise, aside from such articles as the West can compete in. There is enough for the New England farmer to do, that must be done among ourselves; the growing of heavy articles that cannot be transported, for low as transportation is, it must ever remain a complete protection against the West, on certain important articles, and those, in most cases, the very ones best adapted to his soil.

August, 1856.

QUEEN ELIZABETH'S DINNER.

A gentleman entered the room bearing a rod, and along with him another, who had a table-cloth, which, after they had both kneeled three times with the utmost veneration, he spread upon the table, and after kneeling again, they both retired. Then came two others, one with a rod again, the other with a saltcellar, a plate and bread; when they had kneeled as others had done, and placed what was brought upon the table, they too retired with the same ceremonies performed by the first. At last came an unmarried lady, (we were told she was a countess,) and along with her a married one, bearing a tasting-knife; the former was dressed in white silk, who, when she had prostrated herself three times in the most graceful manner, approached the table, and rubbed the plates with bread and salt, with as much awe as if the queen had been present. When they had waited there a little while, the yeomen of the guard entered, bareheaded, clothed in scarlet, with a golden rose upon their backs, bringing in at each turn a course of twenty-four dishes, served in plate, most of it gilt; these dishes were received by a gentleman in the same order they were brought, and placed upon the table, while the lady-taster gave to each of the guard a mouthful to eat of the particular dish he had brought, for fear of any poison. During the time that the guard (which consisted of the tallest and stoutest men that could be found in all England, being carefully selected for this service) were bringing dinner, twelve trumpets and two kettle-drums made the hall ring for half an hour together; at the end of all this ceremonial, a number of unmarried ladies appeared, who with peculiar solemnity lifted the meat off the table, and conveyed it into the queen's inner and more private chamber, where, after she had chosen for herself, the rest goes to the ladies of the court. The queen dines and sups along with very few attendants, and it is very seldom that anybody, foreigner or native, is admitted at that time, and then only at the intercession of somebody in power.

☞ It is less tiresome to walk than to stand still a given length of time, for in walking, each set of muscles is resting half of the time, but when standing still all the muscles are continually exerted.

MOUNTAINS OF IRON.

The mineral wealth of the region of Lake Superior is almost beyond calculation or even conception. Nature has here stored away her mineral treasures on so vast a scale, that ages will not exhaust the deposit, even after the continent becomes densely peopled. The rich copper mines of this region are already beginning to be unlocked; but perhaps it is not generally known to those who are acquainted with these mines only through the "copper stocks" which represent them at the Brokers' Board, that the shores of Lake Superior are also lined for miles by *literal mountains of solid iron!* While the copper is found in a pure state in veins, the iron is deposited in ore, and in masses. A late visitor to the region furnishes the Chicago *Congregational Herald* with an interesting account of what he saw. Proceeding by boat to the flourishing village of Marquette, he found that there was no mode of conveyance to the mines but one's own feet, or the rude cars, drawn by horses, constructed precisely like the "dirt cars," on which earth and gravel are transported on our railroads, but which here are used for carrying the iron ore from the mines to the shore. In one of these rough conveyances, seated on a pail and drawn by mules, we proceeded to the interior. The road however was excellent, being made of plank where the mules travelled, and laid with iron rails, on which the cars moved. What he saw, at the end of the route, is thus described:

"About fifteen miles south-westerly from Marquette, is a range of high hills, several hundred feet high above the lake, and at least two hundred feet above the land immediately adjacent. These hills extend forty or fifty miles, and are in outward appearance much like other hills, covered with earth and trees. But they are in truth *mountains of iron.* When the thin covering of earth is scraped away—which earth is perhaps from six inches to three feet in depth—the rest of the mountain is solid iron ore. There are no veins, no rocks, no earth, no admixtures of any kind whatever, but iron ore; and ore, too, of the very richest kind. It yields iron of the very best kind, said to be of tougher, stronger quality, than the best iron from Russia, or from Salisbury. The per centage of pure iron extracted from this ore, is seventy-five per cent.

"There is no skill or expense hardly required in mining. For no excavations are needed; no drifts, shafts, nor adits, no machinery nor artificial power. When the earth is scraped away, the whole side of the mountain of solid ore is exposed, like an enormous stone quarry. A single blast will loosen many tons, perhaps thirty or forty, from the precipitous side of the mountain. The laborers shovel the fragments into barrows, wheel them two or three rods to the cars waiting on the road, and the work is done.

"The mere inspection of the mines reveals nothing very remarkable. One sees only vast masses of rock, such as one may see in any common stone quarry. But the wonderful fact is, the immense masses of mineral wealth here deposited. In this one deposit is iron enough to supply the whole world for thousands of years. Here is revealed the magnificent profusion of the great Author of Nature. One wonders where are the gigantic laboratories where were mingled, and whence were sent forth, the untold masses of iron ore. One reflects, too, on the immense wealth which for ages can be extracted from these mountains of iron; wealth more durable and valuable than that which comes from the mines of California."

LETTER FROM MR. BROWN.

New Ipswich, N. H., Aug. 21, 1856.

Dear Sir:—A severe easterly storm has shut me up closely here yesterday and to-day. For nearly forty-eight hours the fall of rain has been incessant; the stage travellers report the streams full, roads flooded and badly gullied, and fears are entertained that some bridges are gone.

In my last I spoke of the tendency of New Hampshire lands to go back, first to grass and then to forest lands. A fellow-traveller, detained here, from Hillsboro', states that twenty farms in that town have been deserted, and probably will never again be occupied by man; while a resident of this place informs me that on a single mountain tract in this neighborhood, ten farms are deserted, and the buildings are in ruins! Such are the striking features all over this region of country.

New Ipswich is a pleasant and thriving town. It has a good clayey loam soil, watered by the Souhegan river, and numerous small rivulets, which afford abundant and valuable water privileges. The first cotton factory erected in the State was put in operation here in 1803. An Academy was incorporated here in June, 1789, which has flourished to this day. It has numerous stores and shops of various kinds. The population is less than two thousand, but active and intelligent.

The storm has been too severe to visit farms in the vicinity with comfort; but I could not resist the inclination to look at Mr. Preston's stock and lands, of which I had heard favorable reports before. I found him quite ready to gratify my wishes, and any thing but an "umbrella man," for the storm seemed to give him no sort of uneasiness. His farm and stock are not only a credit to him, but an honor to the art of agriculture. A brief account of the management and products of a single field will give your readers a pretty correct idea of what he has been doing.

The field in question contains nine acres, and at the time he first plowed it would not summer two cows. It was very stony. He first plowed one-half and sowed oats, without manure; but a crop of 35 bushels per acre showed the natural strength of the soil. Stones were removed and the remainder of the field plowed. A barrel of plaster was applied to the oats after sowing. In the autumn 25 ox loads of manure per acre were applied to

the half first plowed, and the next spring sowed with oats and grass seed. The crop was 50 bushels to the acre; this course was pursued until the whole field was in grass. He mowed this field six years, and obtained a fair crop. He then plowed, applied 30 loads of manure per acre, planted corn and got a yield of 50 bushels an acre. After corn one year, wheat was sown in the spring, and on the first half 20 bushels, and on the other 26½ bushels was obtained. The land at the same time was seeded to grass. Last year, on eight acres of this field, he got 196½ bushels of wheat, and this, *twenty-four tons of hay!* The second crop, we should judge, will yield a ton to the acre.

Mr. Preston states that the hay on the whole farm when he purchased it in 1840, did not exceed 15 tons, and that this year, up to the date of this letter, he had cut and got in seventy-five tons, and had much more waiting for fair weather.

The cows and heifers which we saw on his farm, are crosses of native Durham and Ayrshire. Five of the calves are half Jersey, quarter Ayrshire, eighth native and eighth Durham. Most of them are half Ayrshire, quarter Durham and quarter native. This cross is, he says, very satisfactory. Of the 44 cows and heifers which we saw, two only are above the age of seven years, and nearly all four years old and under.

We have seen a good many dairies in New England, and several south, where great pains had been taken with them, but no one, containing so large a number, of so much marked excellence. The casual beholder would be quite likely to say that their ribs and hip bones were too prominent; but the skilful herdsman would instantly recognize the strongly marked milking qualities in a large majority of them. Mr. Preston is a lawyer, and like all men who mean to make the world a happy and progressive one, is called on to do and say a thousand things about town and State affairs, and banks and railroads, and every thing else. Yet he has found skill and opportunity to make a thousand spears of grass grow where only one grew before, and what is exactly to the point, *has made them grow profitably!* We are inclined to think that success is *not entirely* due to him,—for we found his wife enamored of the farm, conversant with stock and soils, plants and flowers, acquainted with theories as well as stubborn facts, and ready to criticize sharply the errors of the field or the barn. With such an auxiliary, who couldn't be a good husband—man?

Truly yours, SIMON BROWN.

Joel Nourse, Esq.

CHEAP DISINFECTANTS.—For all we have said on this subject, we have frequent inquiries respecting the best and cheapest substances for removing offensive odors in sinks, &c., during hot weather. Half a pound of sulphate of iron (copperas) dissolved in a pailful of hot water and thrown into a sink, will remove the offensive effluvia. Choloride of zinc and chloride of lime are better, but much more expensive. Three cents worth of copperas applied every week in the manner described, will keep down offensive odors in a pretty large sink.

We say it with all seriousness, that there are thousands of persons in our cities who should be hung up by the ears for being ignorant of, or neglectful in not applying this cheap disinfectant.—*Scientific American.*

THE WEATHER AND ITS SIGNS.

There is no subject of more importance, and yet there is none with which men of science, and others, are so superficially acquainted, as that indicated in the above caption.

The heat of summer and the cold of winter, the rain and the snow, the thunder and the lightning, the hurricane and the gentle breeze,—how many mingled associations of pleasure and grief are connected with these. Our enjoyments, yea, our very existence, it may be said, are dependent on those operations of nature, which we call *the weather.*

Sometimes, as in 1854, the clouds will refuse their refreshing showers for a long period, and over extensive tracts of country the grass withers, and the lowing kine perish for want of the waterbrooks, and then famine comes and desolates many once happy homes. Sometimes, again, the clouds will pour down their torrents for long periods, and the floods will come and sweep resistless over broad lands, carrying the crops of the farmer from his fields, and his flocks from the vales. Again, the hurricane will sometimes come on swift wing, bearing destruction in its pathway; and, if accompanied with red bolts of lightning, may consume well filled barns and storehouses, and level many beautiful dwellings to ashes. Were those weather changes governed by immutable laws, and were we well acquainted with these, we might adopt special means to meet special ends, and provide against the coming drouth, the floods, and the hurricane. Hitherto the weather has been considered fickle as the human temper, and if it is governed by fixed laws, the whole world lieth nearly in gross darkness respecting them. The sky may be cloudless to-day, and to-morrow, yea, in a few hours, the lightning and the tempest may come, and no man living, so far as we know, can predict the event with certainty.

The astronomer has watched the motions of the distant plants, has weighed them in a balance, and can tell the exact period when the moon, after a long interval, will hide the sun's rays from the earth by day; and also when the eccentric comet, after long journeys in unseen regions of space, will revisit our system again, but he cannot positively tell the particular atmospheric changes that will occur to-morrow in the city where he dwells; and yet a correct knowledge of coming atmospheric changes would be most useful to all men.

Can such information ever be obtained? Not unless such phenomena are governed by fixed laws. Well, when we consider that the planets roll, and the tides flow by immutable decrees, can any person doubt that the weather is governed by fixed law? That such laws do exist, no one in his senses can doubt, and that they will yet be discovered, we have as little doubt, and it is a shame that so little has been done to discover

them. We are glad, however, that something has been done, and there is a promise of more. Various stations have lately been established in our own country for taking meteorological observations, and all the leading nations of Europe have also entered upon the same course of investigations. Such observations extending over various parts of the globe, and for a number of years continuously, will no doubt lead to astonishing results. Already, by private enterprise and keen observation, Prof. Espy and Mr. W. C. Redfield, of this city, have made valuable discoveries relating to gales and for navigators, regarding the rotary progressive course of tornadoes, which have proven to be of great benefit, by teaching seamen how to withdraw from their power. The spots observed on the sun's disk take place at regular intervals, and these, Sir Wm. Hershel asserts, affect the weather on our globe to such a degree as to regulate the very price of wheat. Lieut. Maury has done much to reduce the weather changes on the ocean to a science. It is believed by Humboldt and other eminent philosophers, that the sun is the source of magnetism as well as heat, and the vibrations of the magnet are to our globe, as the beating of the pulse to the human system.

In an article in the last number of the *North British Review*, believed to be written by Sir David Brewster, he says, "Had Hipparchus and Ptolemy made their observations, and had they also been made by their contemporaries and successors in different parts of the world, we might now be predicting the weather with as much certainty as we do the planetary motions." The great number of meteorological observations now being made in various parts of the world, inspire us with hope that such a result will yet be accomplished. We hail every effort that is made to reduce "the weather and its changes" to a positive science, because, as we have already stated, such knowledge will be most useful and important to all men.—*Scientific American.*

For the New England Farmer.

THE BRUMAL RETREAT OF THE SWALLOW.

BY S. P. FOWLER.

Mr. Editor:—It is not my intention again to attempt to prove, that swallows do, under peculiar circumstances, hibernate in trees, and at the bottom of lakes and ponds. This fact is as well authenticated, as many in Natural History.

There always have been, and are still, distinguished naturalists and travellers, who believe in the brumal retreat of the swallow, and who possess facts, to confirm them in their belief.

I am in the possession of more information upon this subject, than when I wrote the articles upon the swallow, contained in the 5th volume of the *New England Farmer.* One of the principal reasons for disbelieving in the hibernation of these birds, is, that having such powers of flight, it is absurd to suppose they would not use them, and migrate to warmer climate, in autumn.

This habit of the swallow may seem strange, but not more so than habits peculiar to some other birds. The same form of argument, which some of your correspondents have used, to disprove the belief, that these birds, in some instances, are found at the bottom of ponds, because they have good wings for migration, would lead these persons to believe and assert, that the cow bird (*Icterus pecoris*) always made a nest of her own, as every bird in this country is known to do, because it is capable of doing it. What! it may be said, does a bird having proper anatomical structure, and possessing the same functions and capacities as others, fail to prepare a dwelling-place, and provide for the wants of her young, and leaving them to be reared by strangers, lead herself an idle, vagrant life?—Away with such absurd notions, they are not worthy of refutation. And if I should say, I am acquainted with a native plant, the (*Apocynum,*) that had a contrivance, like a steel trap, set at the bottom of its corolla, by which flies and small bees were caught by their tongues or probosis, and there held, until the poor things perish, it would probably be said, who believes that? so contrary to nature, and furthermore, of what possible use would it be to the plant, to possess the power to do this cruel act.

Now, I would say to such unbelievers, that nature, as I have observed her for many years, is sometimes queer. That the causes of some of her operations are frequently beyond our comprehension, and she sometimes, though not often, contravenes her own laws; and we had better, if we are her students, come to the conclusion, to believe all well authenticated facts in her history.

Danversport, Aug. 26, 1856.

For the New England Farmer.

SELECTING SEED CORN.

Messrs. Editors:—In looking over some of your back numbers, I found an article on seed corn, signed H. Stratton, and as I am always pleased to read articles that tend to instruct, I will begin by using the writer's own words. First, "It is a law of nature that like begets like in the vegetable kingdom. This being a fact, I base my remarks upon it. Whenever you find a stalk of corn that has two ears on it, you will find that the top ear is from four to eight days earlier than the bottom ear; there being this difference in the setting of the ears." Now I do not say that that is incorrect, but is something different from what I have observed. I have been accustomed to select my seed corn from stalks that have two or three ears on them, and from those stalks of smaller growth, above the ears, and saving both the first and second ears, and planting both. I select to plant, those ears that are as large at the top as at the stem, or nearly so. I have planted one kind, the large kernel, round ears, fourteen years, and I have never been able to discover why I did not have as early corn, and as many bushels to the acre, as my neighbors. Two years ago I changed my seed corn, and bought the long eared, eight rowed corn, so called, taking it from the crib as it was gathered promiscuously from the field. In the fall when I came to gather my corn, I found but few stalks with two ears on, and the second ear not in a single instance as large as the top one; yet, I planted the second with the top one, about equally. Last fall, when I came to top my stalks, I noticed, on almost every hill, from one to three stalks with two ears on, and not unfrequently, three ears, and also that the second ear was the larger, and in some instances, best ear, which was not the case the year before.

Upon the principle that we begun upon, that like begets like in the vegetable kingdom, the nearer the ears start to the ground, the less stalk, and the longer time it has to ripen, and the more ears will grow on the acre. Now, as like begets like, so in saving the top ear year after year, will not your corn ear out some six feet high? I have often noticed pieces of corn, after topping, with ears standing from four to six feet high. I try to select from stalks where the ears stand not more than two to three and one-half feet high, and yet produce larger ears. The way I select my seed corn, is, when topping, or cutting up at the bottom, I find a stalk with two or three ears, and stalks not larger, but forward in ripening, I leave it standing as it grew, for a week or so, and then cut up at the roots, bind and stack them a week or two, then gather, and trace, and hang them up. I have practised in this manner for years, and have never had a failure in my corn coming up. From the 1st to the 8th of May is the time I plant, and I have not had a crop of corn injured by frost in thirty years.

Southwick, 1856. L. D. F.

For the New England Farmer.

NEIGHBOR DUMPDIRT'S DAIRY.

Mr. Editor:—As I sometimes write a little for the papers for recreation, I propose to furnish you with an account of the dairy of my neighbor Dumpdirt, knowing that he can never find time to favor you with an account of it himself.

You have probably seen my neighbor Dumpdirt somewhere, most likely on the way to market, for he is there more than anywhere else, for he goes often and is a long time about it. Not that his farm produces more than his neighbor's, but I have thought it was because he took so much pleasure in marketing; and thus when his wife churns or the children find a hen's nest, he harnesses up his old hammer-head horse and commences to work his passage to Donklin Falls.

But it is not with Dumpdirt or his horse that I have to do now, but his dairy; and to begin at the beginning, Mr. Dumpdirt has four cows—the oldest the mother of the others. During the winter they are fed on straw and poor hay, for Dumpdirt thinks that feed good enough for cows that don't give much milk, and he don't want them to give much milk in the winter, for he has a theory that they will not give so much in the summer if they do. He will not raise turnips for his cows, for the butter will taste of them; he will not raise carrots, because it takes so much time in haying to weed them, and beets rust and do not come to much.

Under these circumstances, it cannot be expected that Dumpdirt's cows should come out in the spring so fat as others that are kept without regard to expense or profit. And they do not give so much milk when they calve, to be sure, but then "there is no great loss without some small gain"—it saves the trouble of milking and taking care of what milk the calves would leave, and it is about impossible to get the girls to milk in the tie-up, for they declare it to be too dirty for the hogs.

But soon after they are "turned out" they begin to "give down," for they have the range of the whole farm. As soon as the calves feel the benefit of the increase of milk enough to make them salable, they are disposed of by having their heads cut off, and being dressed as well as Dumpdirt knows how, and carried to market.

Then Mrs. Dumpdirt begins to make her butter. The oldest of the children at home are girls, and they do the milking if Ben gets the cows at night, and if they do not get hungry and get out of the yard and "go to grass" before the girls are up in the morning. Sometimes they get out of the pasture and go away, and their bags do not ache enough to induce them to go home, and they "lay out." But Mr. Dumpdirt thinks it does them good to "lay out" a night or two in the spring, for it stretches their bags, and they are not so likely to leak their milk.

Now Dumpdirt's barnyard is not the cleanest that ever was, and the girls are so hurried to get through with the despised job of milking that they cannot stop to clean the cows, and it *is* rather discouraging work when no pains is taken to keep the yard clean. Some of this dirt finds its way into the milk-pail, and when it rains the water drops from the cow's sides into it also, and perhaps improves the color of the butter if not the flavor. But the Dumpdirt girls have a theory which they have learned from their parents, that it is the lot of every mortal to eat one peck of dirt during their life, and they think it makes no difference how soon they eat it, provided they do not know it at the time.

The heifer milks rather hard, and the girls have agreed that the one who gets her first cow done first shall have her choice of the other two, and the consequence is that the two first cows are not always "stripped" as they should be.

After milking, the milk is taken to the kitchen. The pans have been washed the day previous, and set up edgewise against the house to dry in the sun. The chickens run at large on the premises, and they run from the dough-dish and the swill-tub to the milk-pans, to catch flies. The chickens catching flies in the milk-pans, has nothing to do with making butter, but I mention it to show that one branch of business chimes in with another at Mr. Dumpdirt's. The chickens thrive, and the flies are destroyed.

The milk is strained and carried to the cellar, but Mr. Dumpdirt's cellar needs description, or the peculiar flavor of some butter could never be accounted for.

The drain, if there ever was any, is filled up by the rats, and as a consequence there is some water in the cellar the most of the year. To prevent wetting their feet, the "women folks" have carried down pieces of board, little and large, to step on. They have lain rotting in the stagnant water for years, and with other "culch" mixed among them. Then there is an old pork barrel, a beef barrel half full of brine, a soap barrel, a vinegar barrel, a cider barrel, and a dozen other barrels, many of them falling to pieces. Time would fail to tell of the firkins, pots and boxes, and bushels of decayed and growing vegetables and other stuff that are scattered around. The cellar windows, or rather the place where the windows ought to be, are filled with a row of little stakes driven into the ground outside, but notwithstanding all this precaution, the cats (and there are many) will creep in and skim the milk a little sometimes.

As the milk is needed for the pigs, it is skimmed and the cream put in an earthern pot which stands under the stairs.

Mrs. Dumpdirt uses the dasher churn, and when not in use, it is kept on the wood-pile, laying on its side, to prevent its filling when a shower comes. The other morning I was over there to get an axe lent to my neighbor, and the kittens were playing "hide and seek" in the churn. I do not mention it to show that Mr. Dumpdirt is dependent on me for any tools, but to account for the hairs that are sometimes found in the butter. It cannot be expected that butter will be *perfectly* clean when profit is an object in its manufacture, for too much time spent upon it would make it cost more than it would come to.

When the cream pot is full the churn is brought in, and, if it leaks, hot water is poured in until it is tight. The water is then poured out and the cream poured in. Then comes the tedious work of churning with a dash churn, having no idea how long it will take. And for some reason or other Mr. Dumpdirt's butter is rather uncertain about coming. If it comes in half a day or less, "well and good;" if not, she pours in cold water. Then if it does not come in a few hours she pours in hot water. If it does not come by night, she is sure it is bewitched, and tries various charms to break the spell, one of which is to heat a silver half dollar and drop it into the churn. Mrs. Dumpdirt is a firm believer in witches, and she often relates as positive proof of her belief, that once she was heating a half dollar in the fire, and all at once it disappeared, and she "never could find hide nor hair of it."

If the butter comes out, and it generally does after a while, it is taken out by hand and put into a pan of cold water, worked over and salted to the taste, and the balls made up by hand, and put into the butter-box, and it is ready for the market.

Mrs. Dumpdirt thinks butter ought to be salted as much as it will bear, for it keeps sweeter, weighs more, and lasts longer.

I have thus, Mr. Editor, given you some of the particulars of Mr. Dumpdirt's dairying. I do not say his ways of working it are all the best. Indeed, my own method and that of most of my farmer acquaintances are very different, though it costs a great deal of care and painstaking.

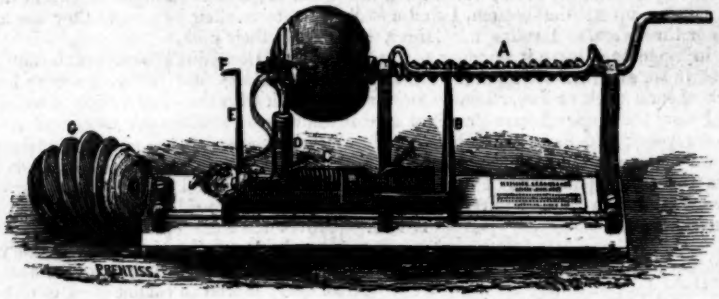
"If a thing is worth doing at all, it is worth doing well," is a rule my uncle Grisley often repeated to me when I was his plow-boy, and now I am my own man, I find the saying verified in most cases. But many persons hold the opposite, at least in practice, and being liable to err ourselves, are bound to respect their opinions.

Goosequill Grey.

Charlestown, July, 1856.

A NEW APPLE-PARER.

The Yankee mind is still prolific in invention, and it is not from the large and costly machines that the greatest benefit is derived: but from the small, and cheap articles, such as are required by every body, and so cheap that all may purchase them. Among these is *Whittemore, Harrington & Co.'s Apple-Parer*, figured above. It quickly and pleasantly performs the office of paring, coring, and slicing the apple at one operation, by merely turning a crank. It is simple in its construction, costs $1,25, and may be purchased of *Blake, Barnard & Co.*, 22 and 26 Merchants Row, Boston.



For the New England Farmer.

FARMING.

Mr. Editor:—In the *Farmer* of Aug. 9th, I noticed an article entitled "Objections to Farming." It really made my heart ache to read the sad story there told; if "A Farmer's Son" is short of money, as he says, and he intends to try to get a living without work, I am afraid he will be disappointed. He intimates pretty strongly, that a farmer has not the advantages of learning. Now, sir, I should think that must be a mistake. Why is a farmer without capital in any worse condition, as regards learning, than a mechanic in similar circumstances?

He speaks of ignorance and servitude as necessary associations of a farmer's life. It must be he is *ignorant*, or he could not entertain such an idea. Why, they are no more necessary to a farmer's life, than are drunkenness and idolatry. He asks who there is that is willing to toil six days out of seven. Stop—God hath said, "six days shalt thou labor," and "by the sweat of thy brow thou shalt earn thy bread."

From what "A Farmer's Son" says, I should think he considered farming one unending routine of pleasureless drudgery; then let me tell him he does not see things as they are; there are ten thousand pleasures which the farmer has, that the mechanic knows nothing of; the farmer has the pleasure of living continually in the midst of *nature*, and has her beautiful and glorious charms forever before his eyes; if he is insensible to these, he is not such a man as he should be. Perhaps "A. F. S." would say, "they have no time for such things;" but if they are careful how they use their spare moments, they will find more of them, and by using spare time judiciously, a farmer may make

his home beautiful, so that it will give him inward pleasure whenever he comes in sight of it. If there is a man in the world that enjoys life, that is *truly happy*, it is the nature-loving, honest, industrious, laboring farmer; he it is, if it is anybody, that is preparing for eternity; if his soul has not descended to a level with the brute, the influences that surround him will lead his mind up to the great Author of all the works and wonders of nature.

In the above mentioned article it is asserted that only a very few farmers can afford to have books and newspapers. Now, I should think that books and papers were as necessary to good and profitable farming, as good plows and shovels; and the man that does without them, cannot farm it as he should, he will be slack and shiftless, always behind time, and in consequence, takes all things to disadvantage, and never does a thing as it ought to be done. The motto, "a penny saved, is two-pence clear," applied to the buying of books and papers, would in truth and reality be "a penny saved is two-pence *lost*." "First," he says, "because we have no time to spare." Now, sir, the farmer that does everything at the right time, *will find time* to spare in the perusal of an agricultural paper or book; if he has so much land that it takes him all the time to get over the ground, without doing justice to one single acre, then he is certainly farming in a shiftless and unprofitable manner; for it is more profitable to have *one* acre well tilled, than to have *five* that are merely "gone over."

Yours respectfully, SIXTEEN.

OUT-DOOR AIR.

Many talk quite learnedly and eloquently on the importance of fresh air to permanent good health, but the rationale of the matter is not often explained so well as in the following article, which we find in an exchange. It is well worth a careful reading, for fresh air, in some places, and at some seasons, may prove pernicious instead of healthful.

Night air and damp weather are held in great horror by multitudes of persons who are sickly, or of weak constitutions; consequently, by avoiding the night air and damp weather, and changeable weather, that is considered too hot or too cold, they are kept within doors the much largest portion of their time, and, as a matter of course, continue invalids, more and more ripening for the grave every hour; the reason is, they are breathing an impure atmosphere nineteen-twentieths of their whole existence.

As nothing can wash us clean but pure water, so nothing can cleanse the blood, nothing can make health-giving blood, but the agency of pure air. So great is the tendency of the blood to become impure in consequence of waste and useless matter mixing with it as it passes through the body, that it requires a hogshead of air every hour of our lives to unload it of these impurities; but in proportion as this air is vitiated, in such proportion does it infallibly fail to relieve the blood of these impurities, and impure blood is the foundation of all disease. The great facts that those who are out of doors most, summer and winter, day and night, rain and shine, have the best health the world over, does of itself falsify the general impression that night air, or any other out-door air, is unhealthy as compared with in-door air at the same time.

Air is the great necessity of life; so much so, that if deprived of it for a moment, we perish, and so constant is the necessity of the blood for contact with the atmosphere, that every drop in the bod, is exposed to the air through the medium of th. lungs every two minutes and a half of our existence.

Whatever may be the impurity of the out-door air of any locality, the in-door air of that locality is still more impure, because of the dust, and decaying and odoriferous matters which are found in all dwellings. Besides, how can in-door air be more healthy than the out-door air, other things being equal, when the dwelling is supplied with air from without?

To this very general law there is one exception, which is of the highest importance to note. When the days are hot and the nights cool, there are periods of time within each twenty-four hours, when it is safest to be in-doors with windows closed; that is to say, for the hour or two, including sunrise and sunset, because about sunset the air cools, and the vapors which the heat of the day have caused to ascend far above us, condense and settle near the surface of the earth, so as to be breathed by the inhabitants; as the night grows colder, these vapors sink lower, and are within a foot or two of the earth, so they are not breathed. As the sun rises, these same vapors are warmed, and begin to ascend, to be breathed again, but as the air becomes warmer, they are carried so far above our heads as to be innocuous. Thus it is that the old citizens of Charleston, South Carolina, remember, that while it was considered important to live in the country during the summer, the common observation of the people originated the custom of riding into town, not in the cool of the evening or of the morning, but in the middle of the day. They did not understand the philosophy, but they observed the fact, that those who came to the city at mid-day remained well, while those who did so early or late suffered from it.

All strangers at Rome are cautioned not to cross the Pontine marshes after the heat of the day is over. Sixteen of a ship's crew touching at one of the West India Islands, slept on shore several nights, and thirteen of them died of yellow fever in a few days, while of two hundred and eighty who were freely ashore during the day, not a single case of illness occurred. The marshes above named are crossed in six or eight hours, and many travellers who do it in the night are attacked with mortal fevers. This does, at first sight, seem to indicate that night air is unwholesome, at least in the locality of virulent malarias, but there is no direct proof that the air about sunrise and sunset is not that which is productive of the mischief.

For the sake of eliciting the observations of intelligent men, we present our theory on this subject.

A person might cross these marshes with impunity, who would set out on his journey an hour or two after sundown, and finish it an hour or two before the sun is up, especially if he began that journey on a hearty meal, because, in this way, he would be travelling in the cool of the night, which coolness keeps the malaria so near the surface of the earth as to prevent its being breathed to a hurtful extent.

But if it is deadly to sleep out of doors all night in a malarial locality, would it not be necessarily fatal to sleep in the house, especially if the windows and doors were closed? The reason is, that the house has been warmed during the day, and if kept

closed it remains much warmer during the night in doors than it is out doors, consequently the malaria is kept by this warmth so high above the head, and so rarified, as to be comparatively harmless. This may seem to some too nice a distinction altogether, but it will be found throughout the world of nature, that the works of the Almighty are most strikingly beautiful in their minutiæ, and these minutiæ are the foundation of his mightiest manifestation.

Thus it is, too, what we call "Fever and Ague" might be banished from the country as a general disease, if two thingswere done.

1. Have a fire kindled every morning at daylight, from spring to fall, in the family-room, to which all should repair from their chambers, and there remain until breakfast is taken.

2. Let a fire be kindled in the family-room a short time before sundown; let every member of the family repair to it, and there remain until supper is taken.

For the New England Farmer.

FISH IN ARTIFICIAL PONDS.

Mr. Editor:—Some time since, I saw in the *N. E. Farmer* an inquiry with regard to the propagation of the trout in artificial ponds or reservoirs. I know nothing of the fish except from personal observation and experience, the relation of which may suggest useful hints to those who feel an interest in the subject.

I have in my garden a spring of pure water from which the earth has been excavated in nearly a circular form about 30 feet over, and in parts three feet deeper than the natural outlet; to this has been connected another reservoir, rather larger than the first, by a space 3 feet wide, the water in which is about 20 inches deep, the two ponds parted by a peninsula of oval shape about 15 to 25 feet in extent. I have in these ponds some 50 to 100 fine trout, varying from the size of the common brook trout to several specimens of more than a foot in length. The trouts confine themselves almost exclusively to the spring, and seldom, except in the spawning season, go into the shallow pond, keeping a large space perfectly clean from all mud, where they may always be seen of a sunny morning lying on the pure white gravel on the bottom, in a most amiable group, seemingly in the realization of a most perfect and quiet enjoyment. Earlier and later in the day each one betakes itself to its own hiding place, and watches for such insects as may fall into the water, or some juvenile frog that may venture within their reach, and which they are sure to add to their dinner. I feed them occasionally with angle worms, fresh meat and little fishes cut up fine, &c. crumbs of bread and cracker they will not eat. The trout is not easily tamed; they know when one comes to feed them; and they will approach within six or eight feet, but they are alarmed at any quick or unusual movement, and will not be easily coaxed back again. My fish are very healthy and beautiful, and are objects of much interest to all visitors in the garden. The pairing season of the trout continues through the last weeks in October and first weeks in November, when they go by pairs, some into shallow corners about the deep pond, but mostly into the shallow pond, where they select separate places and stay by themselves two or three weeks, allowing none to interrupt their dual society; on the approach of cold weather they again seek the deep water and resume their former habits. I have no doubt if the old fish, which are very voracious, should be entirely taken from the water, a million of little trouts would grow up in their place, but in my pond I have not seen them after the first few weeks in spring; I believe they serve as food for their parents.

The second pond through which the water passes to its final outlet, was intended and is used for a paddling place for some half dozen little children, who make a good deal of music about my garden, and it would do your heart good to see the delight, the splashing, and hear the shouts of the little rogues as they occasionally frolic in the mimic sea.

There is a growing inclination to experiment in the matter of fish raising, and if my little experience as related above, is in your estimation of any value, you are at liberty to use it. The present is a good season to prepare the ponds, and at the pairing season the fish can easily be taken with a net and transferred to it. J. W. C.

Framingham, August 20, 1856.

Remarks.—We are pleased with the above account, because we believe that every thing of this kind goes to make the world beautiful, interesting and profitable; for we do not yet think that *all* profit lies in dollars and cents. There is a *profit* to the heart and soul which has not yet been sufficiently considered; but where it *has* touched them, it shines forth in the very abodes of poverty, as well as in more pretentious conditions. Many of the mud cabins of the English peasantry, possess more true nobility of character than some of the towering mansions of the rich citizen; and their souls are more in unison with God and Nature, and they have a wealth of feeling, and love, and patriotism, which are strangers to many educated minds which look down on them with pity or contempt.

The great Architect has given us tastes to enjoy some things better, in forms or conditions different from those in which he has left them, and he who changes and makes them pleasant and attractive, merits, and will receive the public regard and approbation.

Breathing and Thinking.—Let any reader think for a moment of what he experiences when he breathes, and attends to the act. He will find that his whole frame heaves and subsides at the time; face, chest, stomach and limbs are all actuated by his respiration. Now let him *feel his thoughts*, and he will see that they too heave with the mass. When he entertains a long thought, he draws a long breath; when he thinks quickly, his breath alternates with rapid alternations; when the tempest of anger shakes his mind, his breath is tumultuous; when his soul is deep and tranquil, so is his respiration; when success inflates him, his lungs are as tumid as his conceits. Let him make trial of the contrary; let him endeavor to think in long stretches at the same time he breathes in fits, and he will find that it is impossible; that in this case the chopping lungs will needs mince his thoughts.

CONCORD JAIL.

GENTLEMEN:—I read with more than ordinary satisfaction the letter from your correspondent "Here and There," dated "Concord, Massachusetts, July 31." The revolutionary reminiscences connected with that old town must ever excite in a true American bosom feelings of patriotism, pride, and pleasure. There the first blood of the American Revolution was shed, and there lie buried the remains of those who fell; and tracing from the point of time when that momentous occurrence took place, the events and results of that war of independence; resting the mind for a moment on that glorious "Declaration" of our fathers, and then coming down "through all the past" to the present, what American heart swells not with admiration at the heroic deeds that have accomplished our present prosperity and happiness as a nation, and who is there with one particle of the spirit of '76 in his bosom who does not anathematize any wretched hope or purpose of a dissolution of the Union?

But I am straying from my object in writing this, which was to state to you a curious historical reminiscence connected with Concord. You are aware, I believe, that the pleasant residence of ex-Lieutenant Governor Simon Brown, formerly of this city, is on the banks of that same "sluggish Musketoquid" (Concord) river. Many a pleasant day has it been my lot to pass beneath his hospitable roof, and many an hour have I spent boating on that river, with fowling piece and rod and line; and the chowder I assisted in eating on its bank last summer, made by the Governor and equaling one of Daniel Webster's best, will not soon be forgotton.

Well, there hangs in one of the parlors of Gov. Brown's house a picture, in water colors, presenting a view, in admirable perspective, of Concord jail and the keeper's house as they were in 1778; and that picture is supposed to be by the hand of Sir Archibald Campbell, who was imprisoned in Concord jail during that year.

The picture was sent from England many years ago to a relative of Sir Archibald, and was presented to Gov. Brown by the family, and is carefully preserved by him. Under it is written, so far as I now remember, "*Concord Jail in America.*"

By reference to Stedman's History of the American War, vol. 1, p. 160, an account of the capture of "Lieutenant Colonel Sir Archibald Campbell," with his troops, will be found, with a letter from Sir Archibald to Sir William Howe, dated "Concord Gaol, 14th February, 1777." He describes his treatment, which appears not to have been very satisfactory, and describes very minutely the jail itself, and closes itself in the following words:

"In short, sir, was a fire to happen in any chamber of the gaol, which is all of wood, the chimney stacks excepted, I might perish in the flames, before the gaoler could go through the ceremony of unbolting the doors; although to do him justice in his station, I really think him a man of humanity: his house is so remote that any call from within, especially if the wind is high, might be long of reaching him effectually.

"I have the honor to be, &c.

"ARCHIBALD CAMPBELL."

I confess to having looked upon that old picture, knowing all the interesting circumstances which attended its production, and its final deposite in the very village where the jail once stood, with as deep an interest as I ever examined any picture in my life. The next day, full of the thought of it, I rod past the spot where the old jail was located, and so on, down to Cambridge, over the ground up which the British troops marched on the morning of the 23d of April, 1775, and over which they retreated so disastrously on the afternoon of the same day, "in which," says Stedman, "they were driven before the Americans like sheep."

One can hardly move in the vicinity of Boston without finding something to stir the memory and set the blood to tingling with thoughts of "those men of old" who suffered everything to found our Union, now so prosperous and which might be so happy.

B. B. FRENCH.

National Intelligencer, Sept. 1, 1856.

GARGET, OR INFLAMED UDDER.

The town in which we reside, as well as most of the towns in the vicinity, is strictly an agricultural town, and the attention of farmers has been turned for several years to raising milk for the Boston and other markets in that neighborhood. Of course, cows command a high price, the best are eagerly sought for, even into the States of Maine, New Hampshire and Vermont, and the skill of the producer is taxed to ascertain the best modes of feeding and sheltering, in order to produce the largest quantity of milk. Large sums are annually expended for oil and rice meal, corn meal and shorts, in addition to the best hay usually fed to them. On some farms, roots are raised in abundance and fed out, and care is taken of every kind to get as large a flow of milk as possible.

These cows run in pastures in summer, and are kept in clean and well ventilated stables in winter; they are carded, fed and watered regularly, appear healthy, and have nothing to do but to chew the cud of quiet contentment, and daily replenish the farmer's pails in return for his bounty and care. But under this systematic attention, the disease which we have named at the head of this article, often materially reduces the profits of the business. Various remedies have been resorted to, but have generally failed to produce any beneficial results. The present loss of milk is not all, for the cow affected does not always so entirely recover as not to have her value depreciated, and sometimes permanent defects are established.

A neighbor purchased a fine looking cow a few weeks since, for which he paid fifty dollars. For a week after getting her home, she yielded a good supply of milk, ate well, and promised to be all he expected. At this period, her bag began to swell, appearing to have hard lumps in it, and followed by a flow of bloody milk from one of the teats. The inflammation and hardness increased, until the cow lost appetite, and was altogether in a bad way. The gentleman then had reference to the bound

volumes of the *N. E. Farmer* for a remedy, and in volume 5, page 496, he found a remedy communicated by Mr. Minot Pratt, of Concord, Mass., a very intelligent and carefully observing man. It is the use of *Aconite*, given by soaking a piece of bread in water where three or four drops of *Aconite* have been infused. He says he has never failed to cure when he has administered it. It was given in this new case, and with excellent results.

In vol. 7, p. 336, we have extracted liberally on this subject from Youatt and Martin. They recommend a wash in *Arnica* water, when the udder has received an external injury. But Aconite, if occasioned by a cold. See the article.

A small vial of the *Aconite* in solution, costing but ten cents, would be sufficient for any farm for a year; it is easily administered, and, in our opinion, is the remedy which should be used in the disease of which we have been speaking.

THE GREAT AGRICULTURAL EXHIBITION AT PHILADELPHIA.

The Philadelphians are wide awake in regard to the exhibition of the U. S. Agricultural Society, which takes place in that city next month. The local committee are straining every nerve to have the exhibition excel that held in this city last year. The following paragraphs from the Philadelphia *Inquirer* give some idea of the extent of the preparations made for the exhibition:

"The preparations for this exhibition at Powelton, Twenty-fourth Ward, are progressing rapidly. A very large number of workmen are employed.—A large portion of the fencing has been already put up. The grounds within the enclosure embrace an area of about fifty acres, reaching nearly to the wire bridge on the North, and upon the South taking in the ravine and the old cemetery near the Fairmount bridge. Upon the East the fence runs along the high water line, taking in the river road, and using up the former camping ground. A public road, thirty feet in width, will be left on the West of the enclosure between the latter and the Pennsylvania Railroad.

The ground will be double in extent that of the State Fair two years since. Many of the sheds are nearly finished, and they present quite a picturesque appearance, with their gable ends jutting toward the fair grounds. There will be stalls provided for twelve hundred cattle.

A prominent feature of the grounds is the course for the exhibition of horses, near the southern end. The track will be nearly level, and great care is taken to adapt it for the purpose for which it was designed. The ring is half a mile in circumference, and near it there will be a stand erected that will accommodate eight thousand spectators. Inside this ring the tent of President Wilder will be located. The tents for the different departments of the exhibition, for the officers, for the banquet, and for the use of the Reporters for the Press, will occupy appropriate places on the grounds. Some idea of the extent of the buildings to be erected may be formed from the fact that in addition to the tents and marquees, over half a million feet of lumber will be required in putting up the necessary structures.

The entrance to the grounds will be at the northern and southern extremities of the area, and the exit gates will be located on the western side.

The exhibition will commence on the 7th of October. The Butcher's Association intend to celebrate the event by a grand parade, for which active and extensive preparations are making."

SUGAR.

The following statistics in regard to this article, which now commands an exorbitant price, will be read with interest. We copy from the *Traveller*. It will be seen that there is no scarcity of sugar, in the great markets of Europe and America, but, on the contrary, the supply is unusually large.

This old luxury, but now article of almost prime necessity, droops in price under the accumulation which a diminished consumption, produced by high prices, has caused.

The stock at New York is larger than was ever before known, and is very large in all the ports of the United States. In New York it is set down at 73,833 hhds. and 19,231 boxes, against 26,469 hhds. and 27,280 boxes last year; in Boston, 7,301 hhds. and 14,412 boxes against 692 hhds. and 6,325 boxes last year; in Philadelphia, 8,387 hhds. and 2,242 boxes, against 4,802 hds. and 2,450 boxes last year; in Baltimore, 5,534 hhds. and 2,582 boxes, against 3,255 hhds. and 2,817 boxes last year.

In Europe, including Great Britain, which is the great depot of supply for the Continent, the stock is not only larger, but the imports of the year thus far have been greater than last year, and the business is limited, with a dull market.

The imports into Great Britain, up to the middle of August, this year, were 584,400,000 lbs., against 462,400,000 lbs. last year; and the imports into the chief ports of the Continent of Europe are 442,000,000 lbs., against 454,000,000 lbs. last year. The stock on hand in Great Britain is 238,200,000 lbs., against 164,200,000 lbs. at the same time last year; and the stocks at the chief ports of Europe 48,100,000 lbs., against 75,700,000 lbs. last year. It will be seen that England has in store nearly three times the overplus necessary to make up the deficiency on the Continent.

The United States is a great sugar market, and a correspondent at Salem, who is well versed in the statistics of commerce, sends us the following statement of brown sugar entered into the United States in two years, namely:

In 1853, 456,510,627 lbs., costing $14,639,776, on which the duties were $4,391,929.

In 1854, the imports into the United States were 449,520,309 lbs., costing $13,406,996, the duties on which were $4,622,092.

Now, in 1856 the sugar costs double, and the duties under the advalorem rate are double also. Government does not want the money, and certainly when the Louisiana sugar crop is so almost entirely cut off that the planters have none to sell, we ought not to be subjected to double duties, but are rather entitled to have it on the free list.

Molasses now pays 9 cents a gallon duty, under the advalorem tariff, instead of 5 cents, as under the specific duty of 1842.

A NEW AFRICAN GRAIN.

In *Chambers' Edinburgh Journal* we find the following notice of a grain, obtained from the colony of Sierra Leone, Africa, which has recently been introduced into Great Britain:

"According to Mr. Clarke, Assistant Surgeon of the Colony, this grain, which is called 'fundi,' or 'fundungi,' is cultivated in the neighborhood of Kissy village, and in other parts of the colony, by industrious individuals of the Soosoo, Foulah, and other tribes, by whom it is highly prized. By the natives it is called 'hungry rice,' though neither in botanical character nor appearance does it bear the least resemblance to the rice of common culture. The fundi is a slender grass, with digitate spikes, and grows to the height of about eighteen inches.

The ear consists of two conjugate spikes, the grain being arranged on the outer edge of either spike, and alternated; the grain is attached by a short peduncle to the husk, from which it is easily separated. The grain which is codiform, (heart-shaped) and about the size of mignonette seed, is covered by a thin fawn-colored membrane; and when freed from this membrane, is whitish and semi-transparent. It is highly glutinous, and has a delicate flavor, between that of rice and kiln-dried oats.

The mode of culture is extremely simple. The ground is cleared for its reception by burning down the copse-wood, and hoeing between the roots and stumps. It is sown in the months of May and June, the soil being slightly opened, and again lightly drawn together over the seed with a hoe. In August, when it begins to shoot into ear, it is carefully weeded. It ripens in September, growing to the height of about eighteen inches; its stems, which are very slender, being then bent to the earth by the mere weight of the grain. The patch of land is then either suffered to lie fallow, or is planted with yams or cassado in rotation.—Experienced cultivators of this Lilliputian grain assured Mr. Clark that manure was unnecessary, nay, injurious, as it delights in light soils, and is even raised in rocky situations, which is the general character of the surface in and around Kissy. When cut down, it is tied up in small sheaves, and placed in a dry situation, generally within the huts of the natives; for, if allowed to remain on the ground and to get rain, the grains become agglutinated to their coverings. The grain is trodden out with the feet, and is then parched or dried in the sun, to allow of the more easy removal of the outer membrane (or epicarp) in the process of pounding, which is performed in wooden mortars. It is afterwards winnowed with a kind of cane fanner on mats.

In preparing this delicious grain for food, it is first put into boiling water, assiduously stirred for a few minutes, and the water then poured off. To the grain so prepared, the Soosoos, Foulahs, &c., add palm oil, butter, or milk, but the Europeans and negroes connected with the colony generally stew it in a close saucepan, with fowl, fish or mutton, a small piece of salt pork being added for the sake of flavor. This is said to make a very good dish. Sometimes it is made into puddings with the usual condiments, and eaten either hot or cold with milk. By the few natives of Scotland in the colony it its dressed as milk porridge. In either form it is said to be excellent; and Mr. Clarke is of opinion that could it be raised in sufficient qualities, it would become an important article of commerce, as it would prove a valuable addition to the light farinaceous articles of food now in use among the delicate and convalescent.

From the specimen kindly furnished us by Mr. Clarke, the fundi grain appears to be quite as delicate as arrow root, while it possesses a more agreeable flavor than sago, potato starch, and other similar preparations."

For the New England Farmer.

"TROTTING COURSES ON OUR FAIR GROUNDS."

I perceive, Mr. Editor, that you say there exists a diversity of opinion as to the expediency of this class of exhibitions, and invite discussion of the question. If this diversity of opinion actually exists, then it presents a fair subject for discussion. That there is a growing disposition to introduce these at all our agricultural shows, cannot be denied. There will always be a class of persons with an ambition to show their adroitness in the management of *fast horses*; and generally, their skill in other things is *universally* in proportion to their ability in this. A fast horse, like a powerful cathartic, may be of value in an emergency, but neither can be desirable on ordinary occasions.

A correspondent in the *Farmer* of February 2d speaks of the *feats* of ladies on horseback as worthy to be encouraged at our shows. Of this I have great doubt. Not that I would discourage ladies in learning to ride, but I think these occasions are not fit opportunities to display their skill in this particular. Ladies should be able to ride on horseback, when health or necessity demand it, but never for show. The exercise does not accord with that modest deportment, which is ever their greatest charm. I cannot, therefore, commend such a display on our show grounds. I hope it never will be encouraged. But it is said the speed of the noble animal, the horse, can never be perfected, unless it is tested, and therefore it is fit that opportunity be given to put them to the test. This may be well, when it can be done without the usual accompaniments; but when a speculating, gambling spirit is awakened by the operation, it is productive of more evil than good. Whoever saw a horse-race, in presence of many lookers on, without witnessing a disposition to bet upon the result? Whoever knew any good to result from such betting, or hazarding movements? They are neither more or less than gambling—and gambling is always demoralizing.

Beyond question, there are numerous ways of operating at our shows, that are unexceptionable; and while this is so, there can be no occasion to introduce operations of a questionable character.

August, 1856.

THE SEASON IN NEW HAMPSHIRE.—*Concord, July* 27, 1819.—Corn has not presented a more promising appearance since the year 1783—Rye much better than that fruitful season — Wheat generally middling, and some fields very fine. Flax and Oats better than an average. Hay about a middling crop.

I commenced my haying on the morning of the

6th inst. and finished on the evening of the 15th. In that time, I got in 91 loads, with about 96 days' labor, including boys, and what is extraordinary in my husbandry, the whole was housed without a drop of rain. I expended 15 gallons of rum, the flesh of two calves, pork, fish and other provisions the quantity unknown. I had scarcely housed my hay, when a plentiful rain refreshed the earth.—C. Stark, *in Salem Gazette.*

For the New England Farmer.

IMPROVEMENT OF PASTURES.

BY FREDERICK HOLBROOK.

I am interested in the improvement of some sixty acres of pasture land, now in low condition, having been formerly impoverished with successive crops of rye, and in later years too closely fed by village cows. The land is covered with grasses of inferior quality, interspersed here and there with ferns, shrub-pines, and bushes of various sorts; it early feels the influence of summer droughts, so that the pasturage is scanty and poor after about the middle of July each year,—indeed, it is not of very good quality at any season. The land lies pretty well for plowing, being either level or moderately undulating, and free from large boulders or fast rocks, though cobbly in some places; its soil is rather thin, but naturally a tolerably good quality of yellow loam. It is an important object to improve the land, pasturage in this locality being quite scarce, and commanding a high price. Various modes of improvement have been considered; and the plan adopted is to plow up so much annually as leisure from other employments will permit, say ten to twelve acres, in August or the forepart of September, top-dressing with some concentrated fertilizer, and reseeding to grass, sowing winter rye at the same time, for pasturage, while the young grass is getting foothold. It is not the intention in any case to allow the rye to ripen for a grain crop, as the removal of such a crop would draw upon the land too heavily, and in a large measure defeat its improvement for pasture.

In August of last year, twelve acres of the old pasture were measured off, for treatment in the way above-mentioned. Before starting the plow, the piece was cleared of the shrub-pines and large bushes, by taking a chain-hitch around the tops and pulling them out of the ground, roots and all, with the oxen, and drawing them off the field, piling them in heaps for burning. A few furrows were then turned around the field, with a light plow, drawn by one yoke of oxen; but finding the plow and team were quite too light to contend successfully with the stones and roots of brakes and bushes still infesting the ground, a larger and wide turning plow was substituted and an additional yoke of oxen employed. The larger plow was set to run from six to seven inches deep, and with the double team the work of breaking-up was easily and thoroughly done.

In plowing, particular care was taken to overturn the sod completely, and shut the furrow-slices down flat, side by side, so that the vegetation then standing should be entirely turned under and smothered, leaving a clean surface-soil for the reception of the grass-seed, in which the young plant might grow without obstruction. In attempting the improvement of an old pasture, it is quite important that the vegetation of poor quality which has taken possession of the deteriorating soil, should be handsomely turned beneath, to decompose and furnish nutriment to the new grasses. A superficial "cut and cover" mode of plowing, therefore, although it may seem to save a little time at the outset, is in the end just no economy at all; for wherever there is a balk in plowing, or the furrow-slices are not matched in at the edges, there the wild herbage will at once begin to spread its roots and spring up again, choking down the young and tender grasses of the new seeding, instead of yielding them sustenance by its own decay beneath, and growing all the better for having the land in a measure stirred up and mellowed.

After plowing the land, it was harrowed lengthwise the furrows; then top-dressed with the following fertilizers, sowing them by hand, broadcast, the same as one would sow grain: eight acres with ground bone, four hundred pounds to each acre; two acres with guano, three hundred pounds to the acre; and two acres with fresh unleached ashes, twenty bushels to the acre. The field was then stocked down with twelve quarts of herds-grass and one bushel of red-top seeds, together with five pecks of winter rye to each acre, and thoroughly harrowed across and lengthwise the furrows, and the surface pressed down smooth with a heavy roller,—the work being all finished before the first of September.

The weather during the autumn following being quite wet, the rye and grasses came up finely, covering the plowed land with a handsome green—the rye giving the cows considerable feed in October. The rye and young grasses survived the winter well, and started up green early in the spring, giving pasturage before vegetation had started much in the old sward of the adjoining land. The rye mostly disappeared, however, early in July, but the young grass took its place, standing well through the summer, and affording a fresh, tender bite for the cows, even in the dryest time, when the old fields adjoining were so parched by droughts as to yield but little feed, and that not very good. Indeed, just as far off as the eye could discern the pasture lot, it would readily mark off the newly seeded portion, by its deep green color in contrast with the brown and sombre appearance of the surrounding land. The rye paid for itself well in

the pasturage it afforded; and hereafter, six pecks to the acre, instead of five, will be sown. It was the intention to have sowed about five pounds of red and three pounds of white clover seeds to the acre, on a late snow in April last, but through the pressure of other employments it was erroneously omitted.

It is generally admitted to be doing well to make two spires of grass grow where but one grew before; but these twelve acres give fair promise of a greater increase over former products than that; and the quality of the grass produced now is much superior to that yielded before the land was plowed and seeded, which superiority is likely to last for several years. The cows have congregated on the twelve acres every day the present season, keeping the grass clipped as close and smooth as a newly-shaven lawn.

Not knowing by experience what stimulant would be most valuable as a top-dressing for this land, but feeling quite certain that the young grass would need something of the kind to start it into life vigorously, and that the land might thus be profitably helped, it was thought advisable to try several concentrated fertilizers side by side, comparing one with another as to expense and results produced, and thus determining what top-dressing would on the whole be best for future use. It was an additional reason for trying several applications that the land was of very uniform quality, and treated in all respects alike, saving the variations in kinds of top-dressing used. It would be drawing a hasty conclusion to say thus early, which, all things considered, is the best of the three fertilizers tried. It may, however, be fair to say, that up to the present time, the ashes give the thickest "stand" of grass, and a trifle the deepest green color; the bone-dust ranks next, and the guano last—though all have done remarkably well. It would be theoretical rather than practical to venture an opinion now of the comparative future effects of each manure applied; but the land will, in the end, show for itself, and upon that showing I may say something at a future day. Judging from the remarkable immediate effect of unleached ashes in this instance, I should conclude that even ten bushels of good fresh ashes, applied to pasture land in the same way, would produce marked good results; and I should plow and reseed such land if I had ten bushels of ashes to spread to the acre—not failing to apply twenty or thirty bushels, however, if I had them.

Brattleboro', Aug. 18, 1856.

A NEW WORK.—Messrs. LITTLE, BROWN & Co., of this city, we learn, are about to publish a work descriptive of the external phenomena of Nature, entitled, "*Studies in the Field and Forest.*" By WILSON FLAGG. To us, the title itself is exceedingly attractive, and it cannot fail to be so to all those who have read the delightful and instructive Essays of Mr. Flagg, in *Hovey's Magazine*, and in our own columns. He is a writer of rare excellence in the department which he has selected, and his work will be eagerly sought by all lovers of rural life.

For the New England Farmer.

STRAWBERRIES.

A SELECTION OF TWELVE OF THE MOST ESTIMABLE VARIETIES.

Princes Magnate, (P.,) the largest variety yet produced in our country, rounded and some berries compressed, scarlet, rich flavor, productive and highly valuable. A very showy berry for market, and a very remarkable and distinct fruit. Plant extremely hardy and vigorous, with large broad dark-green foliage. The leaves never burn during summer, nor are the plants ever injured by the winter.

Prince's Climax, (P.,) very large, conical, beautiful bright scarlet, a splendid fruit, good flavor, very productive, estimable; plant vigorous, with pale-green foliage.

Imperial Scarlet, (P.,) second only in size to the two preceding, to which it is rather superior in flavor; the form obtuse conical or rounded, scarlet, handsome and very showy, juicy and sprightly flavor, firm and well suited for market, productive; plant very vigorous, foliage pale-green, very large and luxuriant; a remarkable variety, very valuable for the size and beauty of its fruit and for its other qualities. This and the preceding variety are of larger average size than Hovey's Seedling, and much superior in color and flavor, and consequently better suited for market.

Imperial Crimson, (P.,) large, short cone or rounded, dark scarlet or crimson, fine color, sweet, fine flavor, productive, a first-rate berry, firm for market. It is nearly as large as McAvoy's Superior, and has the qualities for a market fruit in which that variety is so deficient.

Le Baron, (H.,) early, very large, obtuse cone, dark scarlet, not showy, sweet, rich, melting, highest flavor of all the large varieties, very productive for one of its sexuality, and continues long in successive bearing; foliage tall, light green, and very vigorous, a seedling of the old Swainstone.

Suprema, (P.,) very large, obtuse cone, bright light scarlet, a beautiful berry, juicy, sprightly, moderately sweet, very productive; foliage large and vigorous. A seedling from Montevideo or Chili, and precisely equivalent to obtaining a Pistillate variety from the British Queen.

Rosalind, (P.,) very large, obovate, beautiful light scarlet, moderate but good flavor, very showy, scarcely firm enough for long carriage to market, very productive; plant vigorous, with large broad foliage.

Eclipse, (P.,) early, large, conical, splendid fruit on long penduncles, and has the remarkable property of ripening all its berries at the same time, bright scarlet, high brilliant color, fine flavor with slight acidity. It is one of the greatest bearers of all strawberries, and a full and profuse crop may be earlier supplied for the market from this variety than from any other; plant vigorous, with large foliage. A very striking and remarkable variety.

Ladies' Pine, (P.,) medium size, perfectly round, beautiful light scarlet, very sweet, highest and most exquisite flavor, productive; foliage dark-green, as if varnished, vigorous growth, with large fruit stems. This most estimable fruit will be deemed indispensable by every amateur who once tastes it.

Magnificent, (P.,) very large, obtuse cone, light scarlet, good flavor, very productive, very valuable.

Diadem, (P.,) very large and showy, rounded, beautiful light scarlet, pleasant flavor, a remarkably fine and beautiful berry; plant very robust, vigorous, and hardy, with tall light green foliage, very productive; a seedling of the Iowa.

Huntsman's Favorite, (P.,) medium size, obtuse cone, bright scarlet, very handsome, sprightly, juicy, sweet, and very fine, productive, highly valuable. This variety was selected by Professor Huntsman from a bed of my seedlings, and was named as above.

Crimson Perfumed, (P.,) large, obovate or rounded, crimson, sweet, juicy, high perfumed flavor when fully ripe, very productive, valuable; foliage dark-green.

Malvina, (P.,) large, obovate, bright crimson, juicy, sprightly, good flavor, very productive. This variety greatly resembles Hovey's Seedling, its parent, both in the growth and foliage of the plant, and in the form of its fruit. But when contrasted it is rather smaller, with the advantage that the berries are of a more average size, and less unequal than that variety; the color is a brighter red, the berries more juicy, and of a more spirited and higher flavor, and it ripens fully a week or more before the Hovey, thus obviating the disadvantages of that variety. It is firm and well suited for market; foliage dark green and luxuriant when in full growth. A grower who sent a considerable quantity to market the past season, contracted for the whole at 31 cents per quart. Wm. R. Prince.

Flushing, N. Y.

FRUIT STEALING.

There is scarcely a cultivator of fine fruit in the country, who has not been annoyed by fruit-stealing, and the loss of some new and rare specimens of kinds which he has procured at great pains and expense, and watched over for years, is a much greater loss than if money had been stolen from his pocket-book. We have not seen any card on the subject more to the point than the following, which has just fallen into our hands, and which was printed and posted up, as we are informed, with decidedly beneficial results. Dr. Whippo, its author, has long held several distinguished offices of trust in Pennsylvania, and among the rest that of Chief Engineer on the canals of that State:—

"Men, women and boys—I want to say a word to you. I mean you who would come into my orchard, especially on Sunday, and carry off my fruit. Of what next will you rob me? There is nothing I would spare more reluctantly than my fruit—there is nothing that has cost me so much time, labor and money, and nothing I have in my possession I value so highly. Upon what principle do you rob me of it? I do not like to be robbed at all—on your account as well as my own; but, if you rob me, take something that I would more willingly spare—take my money or the grain out of my barn. But I would not advise you to do even that, because it is wrong, and will cost you more obtained in this way than if you worked for it, and obtained it honestly. 'Honesty is the best policy,' and so you will find it, let me assure you.

"The law against stealing fruit is very severe, as any of you will find by inquiry: and I know of a number of individuals who might be punished in a way they little expect, if I would put the law in force. But I abstain for the present, and shall only resort to the law when every other means have failed. If any doubt my word with regard to the severity of the law let them inquire. My patience is worn threadbare with these depredations, and I must put a stop to them *somehow*.
—*Country Gentleman.* Chs. T. Whippo."

BRITISH ENERGY.

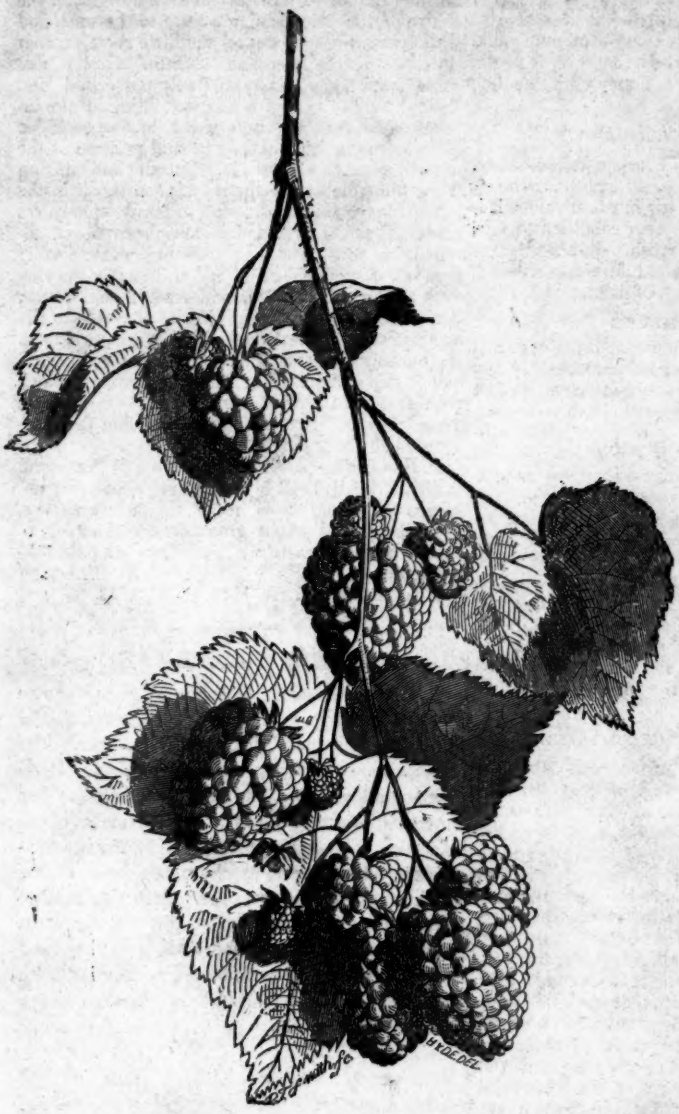
A proof of the energy of the British people, is the highly artificial construction of the whole fabric. The climate and geography, I said, were factitious, as if the hands of man had arranged the conditions. The same character pervades the whole kingdom. Bacon said, "Rome was a State not subject to paradoxes," but England subsists by antagonisms and contradictions. The foundations of its greatness are the rolling waves; and, from first to last, it is a museum of anomalies. This foggy and rainy country furnishes the world with astronomical observations. Its short rivers do not afford water-power, but the land shakes under the thunder of the mills. There is no gold mine of any importance, but there is more gold in England than in all other countries. It is too far north for the culture of the vine, but the wines of all countries are in its docks. The French Comte de Lauraguais said, "no fruit ripens in England but a baked apple;" but oranges and pineapples are as cheap in London as in the Mediterranean. The Mark Lane *Express*, or the Custom House returns, bear out to the letter the vaunt of Pope—

> "Let India boast her palms, nor envy we
> The weeping amber, nor the spicy tree,
> While by our oaks those precious loads are borne,
> And realms commanded which those trees adorn."

The native cattle are extinct, but the island is full of artificial breeds. The agriculturist, Bakewell, created sheep, and cows, and horses, to order, and breeds in which everything is omitted but what is economical. The cow is sacrificed to her bag, the ox to his sirloin. Stall-feeding makes sperm-mills of the cattle, and converts the stable to a chemical factory. The rivers, lakes and ponds, too much fished, or obstructed by factories, are artificially filled with the eggs of salmon, turbot and herring.

Chat Moss and the fens of Lincolnshire and Cambridgeshire are unhealthy, and too barren to pay rent. By cylindrical tiles, and gutta-percha tubes, five millions of acres of bad land have been drained and put on an equality with the best, for rape culture, and grass. The climate, too, which was already believed to have become milder and drier by the enormous consumption of coal, is so far reached by this new action, that fogs and storms are said to disappear. In due course, all England will be drained, and rise a second time out of the waters. The latest step was to call in the aid of steam to agriculture. Steam is almost an Englishman. I do not know but they will send him to Parliament next, to make laws.—*Emerson's English Traits.*

BRINCKLE'S ORANGE RASPBERRY.



This is a new variety of this excellent fruit, originated and propagated by the highly intelligent and indefatigable gentleman, Doct. BRINCKLE, whose name it bears.—Mr. GEO. DAVENPORT, 14 Commercial Street, who has it for sale, has fruited it this season, and exhibited it at the Horticultural Rooms in this city. He showed branches on the 23d of August, on which were berries in full perfection as to ripeness, with others in all stages down to undeveloped blossoms. He states that he picked the first ripe fruit from the same stalks July 12, that the plants stood the winter well, and have every appearance of hardiness.

The fruit is of good size and flavor, and as its name indicates, is of an orange color. It also promises to be a very prolific variety.

A gentleman on the Hudson river, a horticulturist, and a judge of these fruits, says:

"In flavor and beauty it has no competitors, and is not surpassed by any variety in any good quality. It equals Knevett's giant in hardiness and vigor, and continues as long in bearing as River's Monthly, Cushing and V. P. French, which is as long as the season continues warm enough to ripen the fruit. I have picked fine large berries on the 10th of October, with its leaves as green as at any time in the season, with the Antwerp and Fastalf by its side, brown and dry, killed by frost. This has been uniformly the case in different localities, during the five years that it has been in cultivation."

IMPORTED COWS.—Paran Stevens, Esq., the well-known proprietor of the Revere House, has just received by the ship Simoda, from Havre, three superior cows purchased by him at the late Paris Exhibition, where each of them took a prize. Two of them are of the Guernsey, and the other is of the Alderney breed. The two Guernsey cows have bull calves, and the other cow a heifer calf, all of which arrived safely. Mr. Stevens considered these the finest specimens of the breeds to which they belong, that he met with in Europe. They have been sent for the present to Nahant.

☞ Thomas W. Olcott, Esq., has given $10,000 to the Dudley Observatory.

FODDER CORN.—The attention of the reader is called to an excellent article on this subject, in another column. It should have been published at an earlier date; but will be preserved for reference in the Monthly edition of the *Farmer*.

For the New England Farmer.

LITTLE THINGS BY THE WAY-SIDE.

Mr. Editor:—When my hog is sick, I give him ½ pint of fresh lard in a quart of new milk. Simmer until the lard is melted, then give it warm. Repeat this dose once in 6 hours until the hog shows signs of recovery.

TO PAINT AN OLD HOUSE

which requires much paint, I would take 2 quarts of linseed, (tie up in a cloth) and boil 3 or 4 hours in 4 gallons of water; then stir in whiting until it is as thick as whitewash in a proper condition to lay; put it on with a whitewash brush. In a few hours, it will be smooth and hard, and furnishes a cheap, but durable ground for a coat of paint.

SAW-DUST MANURE.

I would dissuade any person from using saw-dust in their stables as litter, or as an absorbent in any way. As an absorbent of liquid manures, its first office is to absorb a much larger bulk than its own, specifically speaking; second, to contribute nothing to the soil, to which it is applied, as its union with liquids prevents its decomposition, as an artificial heat is engendered by such union, which destroys the liquids; after which, the saw-dust remains intact. Meadow hay, straw, muck or loam, is much better, as any of the last named, when well saturated with liquids, immediately commences decomposition, by which the whole mass is easily made into manure. Our liquid manures are much more valuable than the hard excrements, from the fact that they contain the salts and minerals in a greater degree, so essential to a profitable improvement of our soil.

CHIP DUNG FOR MULCHING TREES

also stands condemned on my journal. By close observations, made this season, I find that the worm that bores dry pines, and other trees, is the identical "apple borer," and inhabits old logs, chip dung, and nearly every variety of decaying wood. Well decomposed muck is a clear exception to this class, and in my opinion, is the very best article to put about young trees, at transplanting, mixed with an equal amount of well pulverized barn yard manure. I am well persuaded, from experiments made this season, that one-half peck of clear sand, or bank sand, put around the body of the tree, at the top of the ground, has a strong tendency to keep the borer away. Not one of mine treated in this way has been injured this season. I attribute the ravages of the borer upon our apple and quince trees, for the past fifteen years, to an absence of the broad forests which once covered this section of country. Now the subject is before me, allow me to say a few words in relation to

TRANSPLANTING YOUNG FRUIT TREES.

As to the time of setting, my method is to do it when I have time to do it in the most thorough manner, spring or fall. In process, I dig a hole 6 feet in diameter, and 1½ deep; putting the loam by itself, and placing the sods at the bottom of the hole, bottom up, to form a mellow, penetrable bed for the roots of the tree. I now take the tree from the nursery, and with a sharp knife trim off all the roots that have been cut or bruised by the shovel in taking up, with a slanting cut, slanting from the bottom up, so that when the tree stands up, the angle cut upon the root, lies flat upon the ground. I now set the tree upright, in the centre of the hole, leaning a little to the west, and with a watering-pot, wet all the little roots, so that the dirt will readily adhere to them. Now I take some loam upon a shovel, finely pulverized, and shake it upon the roots while wet, filling all the interstices between the roots with light, fine earth, so as to leave the roots in their natural position at the nursery as much as possible. Put all the loam dug from the hole about the roots, then throw in the remaining earth, careful not to tread it down (as many do) as the light and permeable earth will admit dews, rains, heat and moisture, more readily than hard trodden earth, and will enable the tree to withstand the drouth, and frost much better. Set the bulby or bushy side of the tree to the south-west, to protect the body, in a measure, from the burning sun, and cold winter blasts which prevail in this section. When the trees are set, mulch each tree with a a wheelbarrow load of compost, made of equal parts of compost and fine yard manure.

P. S.—Before setting, if the tree is large and thrifty, I usually head in the upright shoots in preference to cutting out some of the main branches. This checks its upright growth, and induces it to form a more symmetrical head than it would otherwise do. Lewis L. Pierce.

East Jaffrey, N. H., 1856.

VERMONT STATE FAIR.

The *Sixth Annual Agricultural Fair* for the State of Vermont, took place at Burlington, on the 9th, 10th, 11th and 12th days of September. The grounds were directly on the shore of Lake Champlain, on a high table land, level, and affording fine opportunities for all the various departments of the exhibition. The edge of the bold bluff was skirted with yellow pines, checking the fresh breeze which came across the lake, and tempering the hot rays of the sun. Water was brought to the grounds in abundance, both for man and beast, hay and provender were plenty, and booths, crowded with all sorts of edibles, afforded aliment for the hungry and tired visitors who were in attendance to the number of thousands.

The weather was favorable, the roads in good condition, and, with the exception of a political meeting at Plattsburg on the second day, nothing to prevent a numerous attendance by the people of the State.

The show of *Horses* made the leading feature of the occasion, and well may Vermont bear off the palm in this department of rural industry. The attention of the country is now turned to Vermont for the best blood in this noble animal; and a single visit to the course at this fair, would satisfy the attentive observer that the reputation gained is not a fictitious, and will not be an ephemeral, one. Prices ran high. $20,000 was offered for the well known horse, "Ethan Allen," and refused,

and $9,600 was paid for a Black Hawk colt less than two years old, to be taken to Baltimore.

In the department of cattle, the exhibition did not reflect credit upon the productive ability of Vermont. The *working oxen* were neither numerous nor particularly excellent. A few bulls only, of any blood, were remarkable; and with the exception of a lot of cattle of mixed Durham blood, the property of Mr. Ezra Meach, Jr., of Shelburn Point, there was nothing of striking excellence, in numbers. There were a few young milch cows of fine appearance, and some yearlings of large size and excellent points.

Among the *Fat Cattle*, there were some very fine. A pair by B. P. Munson, of Wallingford, and others by G. W. Brownell, of Williston, were a credit to the State.

The show of *Sheep* did not come up to what we have seen in Vermont before.

What butter and cheese we saw appeared to be of the highest excellence; but both were meagre in quantity.

Where the women were wholly concerned, in the department of domestic manufactures, and all in-door industry, there were many evidences of taste and skill.

There was little fruit of any kind, not as much as any single good garden might show.

Fine specimens of the Vermont marbles were presented, and had been wrought with a praiseworthy skill. There were also castings, in iron, of various utensils.

The department *of machine and agricultural implements*—but especially of large machinery, such as hay-presses, stump-pullers, and sowing-machines, was well represented. A seed sower presented by Mr. *Hazen Willard*, of Vergennes, attracted considerable attention. It was claimed to possess the ability to sow any seed, from the size of a kernel of corn down to mustard seed, and sow it and cover it regularly. The machine occupies a breadth of some eight feet, has two revolving cylinders, with adjusting slides so as to reduce the holes to any required size. The seed is covered by a round stick, coming near the ground and filled up with spikes or teeth, about 6 inches long. The cylinders, and this revolving harrow, are moved by gearing connected with the wheels and moved by their motion.

A new Corn Sheller, patent of J. P. Smith, did the work with great rapidity, and separated the cobs from the corn. It is manufactured by Jason Davenport, of Middlebury, Vt.

In some respects, the Sixth Annual Agricultural Show of Vermont was surpassingly attractive; but in many others we thought it greatly deficient. We have little fault, however, to find with the officers who conducted it—they rather command our admiration for their zeal and the self-sacrificing spirit they have manifested in this and former years.

The first error, in our opinion, is, that the State does nothing to promote the objects of the occasion. It has neither given the enterprise the advantages and dignity of an incorporated body, nor contributed to its means of attracting the public interest. There can be no doubt that an appropriation of ten or fifteen hundred dollars, annually, would soon replenish the State treasury to more than double that amount. Then we would suggest that there be provided on the grounds a rude building of sufficient capacity to accommodate officers, reporters, judges, and such other persons as would be glad to dine together each day. There ought also to be, on one of the days, an address from some person engaged in agricultural pursuits, and during its delivery, the course should be kept clear of horses, and efforts made to bring as many as possible within its influence. Then the show of horses —although it will be the leading feature—should not be allowed to overshadow all things else. Systematic effort should be made to draw to the Exhibition the finest cattle, sheep and swine of the State, and the cattle should be groomed and made to appear to the best advantage.

A bold policy will be the true one. The people must make an effort to show their best and in its best condition. Vermont is capable of making the finest show—all things considered—of any New England State,—but unless she bestirs herself in all the departments of the Exhibition, she will surely lose her laurels in everything but the single show of horses.

We would express our obligations to the officers of the society, and the Hon. HARRY BRADLEY, for their kind attentions, and to President WHEELER and his interesting family, for the hospitalities of their house during our stay at Burlington. Some other matters connected with our visit will be spoken of hereafter.

SWALLOWS AGAINST FLIES.

While on a late visit to a friend's residence in the country, we were most agreeably surprised at finding an unusual scarcity of flies, mosquitoes and the whole tribe of winged nuisances which have there in years past warred against peace and comfort of both bipeds and quadrupeds. The change was readily accounted for upon learning the following facts:—

Last May, about one hundred and fifty swallows one morning made their appearance and commenced building their nests under the eaves of a long new barn. As soon as their operations were discovered a cleat was nailed along the boards, which was painted, and thus better facilities afforded the swallows for attaching their nests. Thus encouraged, the whole feathered company at once set to nest building, and in three weeks' time, between seventy and eighty of these mud fabrics were completed; and in about one month more, each of these was occupied by from three to six tenants. Your readers can easily conceive of the

immense sacrifice of insect life required to feed such a numerous company. The result has been as before stated. Add to this, the joyous warblings from these feathered songsters, and what a contribution of pleasure and comfort!

To legislatures in general and the whole community in particular, we say, encourage bird raising. Don't suffer wanton sportsmen to enter your fields, and prey upon these friends of man and beast. Show your regard for your own and the welfare of the community by sparing the birds.—*Traveller.*

For the New England Farmer.

FODDER CORN.

I have observed frequent references in the *New England Farmer* to an article which I thus denominate, but as all I have seen appear to have been from men who were inquiring, rather than of those who had made full experiments in the business of growing this kind of fodder, I have been induced to forward the following communication, which is the result of about fifteen years experience.

I began with common corn in drills three feet apart, and let it stand much too long, so that I had a large supply of hard stalks which were useless for fodder. After sundry trials, I at length came to the following results and adopted the following rules.

1. Any kind of land which is suitable for corn, is good for the crop in question. If it is rich, the growth will be so much more rapid and luxuriant, but you may get a good crop on land of moderate fertility.

2. My time of sowing or planting is at any period from early spring, to the middle of August. If at the latest period, your land should be in good condition, and you will have a growth sufficient for the best kind of fodder by the time of the earliest frosts. And if it gets some slight nippings it is not fatal, but the sooner it is then cut the better. I have, however, let patches stand till the middle of November, when the top leaves were faded and dry. But the body of the stalks were still good, and I had rather have them to feed out to milch cows than good hay as a part of their food.

3. *On planting in drills or sowing broadcast.* The drill system is the best for weedy land, on account of the advantage of hoeing, which requires but little labor if it is done in season. All undergrowth will soon be overtopped on my mode of cultivation. When I go for drills, eighteen inches apart is an ample width. I have gone down to twelve, but this is too narrow, unless your land is very rich. The abundance of roots will be too much cramped, to produce a sufficient growth of blades. In the drill system you have this advantage; with a sickle or hand scythe you can cut down the rows in a rapid manner, and prepare for curing and binding very easily. On this plan the corn is dropped like peas, the average distance should be about three inches.

When I sow the corn broadcast, four bushels to the acre is my general rule. If the kernels are large more seed should be used. Like small grain for fodder, I have found the more that will grow well, the better it is for feeding.

4. *The best kind of seed.* My rule is to look out for the best flat corn I can find, and avoid by all means that which has been swelled on the voyage, as much of it will not come up. In former years I found the Maryland corn was better than that which came from farther south. The kernels, however, are generally large, so that fewer plants will be obtained from a bushel. For a few years past I have sought for the yellow western corn, that comes by the way of the lakes. The kernels are of moderate size, and pretty sure to vegetate if it comes direct.

5. *Sweet corn for fodder.* This I have often used, and find it very good, but still I cannot recommend it in preference to the gourd seed kind, as it is called. The yield is much less. It no doubt contains more saccharine matter, and is more delicious to the taste of cattle, and it is well enough to use it in a small way, but a full foliage is easiest obtained from southern or western seed. Cattle are fond enough of that, green or dry.

6. *The proper time to cut this fodder.* In my early experiments I was very apt to let it stand too long, so that I lost, in the hardening of the under growth, what I gained in the upper, so that I now cut it so early that most of the stalks will be eaten, especially by the aid of a cutter. But still if a portion of them are left for litter, you will get more substantial fodder from the same ground than from dry small grain, minus the leavings.

Corn in drills on good land may be cropped once or twice, according to the luxuriance of its growth before the final cutting. Where a man has but a cow or two, these croppings will aid very much the supply of food, and the yield of milk. The way this is done is to grasp a handful of the tops, and take them off with a stroke, but be careful not to go down too far. In a few weeks, where the plants are in vigorous growth the leaves will have attained their former height. Half a bushel of these leaves pressed down by hand, are a good mess for a cow instead of meal.

7. *How to manage the broadcast sowing.* I prepare the ground the same as for oats and millet. It should be levelled with a harrow, to secure uniformity in the disposition of the seed. But so different is this sowing from that of other grain, that a good sower will often find it difficult to spread it even as he travels on. This deficiency may be remedied by one who has no sowing skill following after, and supplying the thin places, as they can be easily seen. The covering may be done by a tooth harrow and a brush. But I think the better way is to use the tooth harrow twice in different directions, and finish with a roller. This prepares the ground for the scythe.

8. *On the curing of corn fodder.* This is the most difficult part of the whole operation. Millet is a hard thing to cure, but this kind of fodder is much harder, as the stalks are much larger, and full of juice. In my early experiments I carted it out on to grass land, principally to avoid the grit which would adhere to the leaves in case of rain. But this practice I long since abandoned, and let the crop remain where it grew. The grit will all fall off by handling, and I found the making will not go on so fast on grass, as the dry soil. A few good sunny days will prepare the fodder for being gathered into a smaller compass. That which comes from drills must be gathered into bundles for sheaves, and be opened and turned as long as it is needful. It is a good plan as soon as you choose, after cutting, to bind up the article into

bundles of any size, and carry it home to barns or sheds, or wherever it can be safe from rain, and then open it and stand it up around, or spread it on poles or any platform where the air can circulate underneath. No matter about the sun in this position; the moisture, the great trouble to be overcome, will gradually evaporate, and the whole may be packed away safely for any length of time. In this way the brightest and best fodder is obtained. The bundles left on the ground may be shocked up like top stalks, but special care should be taken in binding and capping the shocks, to guard against any water getting down into the bundles, for so solid are they when bound, that it will not run through, and the moisture about the bands will remain to the injury of the fodder. Were it not for the extra labor of dropping the seed in the drills, I should always follow this system, as more fodder can be got from the same ground and it is more conveniently handled through every process. In the making of this fodder which has been mowed the same process may be followed as with clover, only it takes longer time. After two days' sun it should be put in heaps of moderate size, to stand for a few days. At every opening and putting up the heaps may be made larger, till they are young stacks, and then they may be left at discretion as to time. But as the mass is very porous the heaps should be well covered with green cuttings or any thing else.

Thus far I have had respect to small operations in the fodder line, to the doings of those who have but little land or stock. To such I would recommend to employ every spare patch on their premises in growing the fodder in question, to be used green or dry; to plant the seed in every nook and corner, and particularly on head lands and in outside rows instead of potatoes, which in such situations generally do but little, but the roots of the corn here will extend outward and make vigorous plants. A good late crop of my favorite article may be obtained immediately after oats which are cut early for fodder, with a slight dressing with guano or ashes or some vigorous manure.

9. *Corn fodder compared with good hay for making milk.* I have often tried the experiment, with a result in favor of the former. But many say we will plant our land with our corn in our old way, and then we get the grain and fodder too. This is true, but the fodder is far inferior and but about one-tenth as much. And besides, a good growth of fodder may be had on land, where there would be but a meagre yield of common corn.

10. *Green corn stalks are injurious to milch cows.* This idea was referred to by a writer in the *Farmer* last year. Although this old tradition has been nullified by all my experience, yet to get the opinion of others I inquired of a milk man for *his* experience in his business. His answer was to this effect: "I grow a large amount of sweet corn on purpose for my cows, and begin to feed it out as soon as it will do to cut, and continue to, so long as it continues green, and I plant at different times. This practice I have continued for years, in face of the old notion of drying up the milk. To test this question," continued he, "let a cow break into a field of green corn, when of course she will eat all she wants, but who ever found she gave less milk for it? Instead of any injury from green corn fodder for my cows, I consider it among the best articles I can get for soil feeding, and for helping out my short pastures in dry times."

Farmers who have an ample supply of mowing lands have less inducement to go for this fodder, but even in that case, they will see their account in it in part at least, for their cows, green or dry. From no grain can so much per acre be obtained.

11. *Corn fodder for horses.* Through all the south and west, where grass does not grow naturally as with us, *corn blades*, as the leaves are called, constitute the principal fodder for horses, as well as other stock. These leaves are stripped off when green, and cured and done up much as top stalks are managed with us. In seasons when the grass crop will evidently be short, much may be done to help the deficiency by the sowing of corn, which may be done after it is certain the failure will take place. But where I can have my choice I get this fodder ready for cutting while the sun shines with full power, as the making of it is attended with more ease and less hazard. AGRICOLA.

UNITED STATES AGRICULTURAL SOCIETY.

OFFICE 160 CHESTNUT STREET, PHILADELPHIA.

The Fourth Annual Exhibition of the UNITED STATES AGRICULTURAL SOCIETY will be held at POWELTON, (Philadelphia,) on Tuesday, Wednesday, Thursday, Friday and Saturday, October 7th, 8th, 9th, 10th and 11th.

Premiums from TWENTY-FIVE to TWO HUNDRED DOLLARS, amounting in the aggregate to FOURTEEN THOUSAND DOLLARS, will be offered for the various classes of Domestic Animals, Fruits, American Wines, Vegetables, Grains, and Agricultural Implements and Machinery.

A Local Committee at Philadelphia, representing the various branches of Industry, has been appointed to co-operate with the officers of the society, in perfecting arrangements for the Exhibition. FIFTEEN THOUSAND DOLLARS have been guaranteed to meet expenses. This material aid, coupled with the excellence of the selected location, and the large amount of Premiums offered, induces the expectation that the Exhibition of 1856 will be superior to any of its predecessors.

A Grand Agricultural Banquet, in which ladies, as well as gentlemen, will participate, will take place on Friday, October 10th, when distinguished gentlemen will address the assemblage.

Favorable arrangements with the various railroads for the transportation of Stock and other articles are in progress, the terms of which will be given on application at the office.

The List of Entries, the Awards of Premiums, and the Proceedings, will be published in the Journal of the Society for 1856.

The Premium List, with the Regulations and Programme of the Exhibition, will be furnished on application to Mr. JOHN M'GOWAN, Assistant Secretary of the United States Agricultural Society, 160 Chestnut Street, (Rooms of the Philadelphia Agricultural Society,) or by addressing the Secretary, at Boston.

MARSHALL P. WILDER, *President.*
WILLIAM S. KING, *Secretary.*
Sept. 1st, 1856.

EFFECT OF HARD WATER UPON ANIMALS.—Horses have an instinctive love of soft water, and refuse hard water, if they can possibly get the form-

er. Hard water produces a rough and staring coat on horses, and renders them liable to gripes.—Pigeons also refuse hard water, if they can obtain access to soft. Cleghorn states that hard water in Minorca causes diseases in certain animals, especially sheep. So much are race-horses influenced by the quality of the water, that it is not unfrequent to carry a supply of soft water to the locality in which the race is to take place, lest there being only hard water, the horses should lose condition.

Mr. Youatt, in his book called "The Horse," remarking on the desirableness of soft water for the horse, says:—"Instinct or experience has made the horse himself conscious of this, for he will never drink hard water if he has access to soft he will leave the most transparent water of a well for a river, although the water may be turbid, and even for the muddiest pool." And again, in another place he says: "Hard water, drawn fresh from the well, will assuredly make the coat of a horse unaccustomed to it stare, and will not unfrequently gripe or further injure him."

For the New England Farmer.

THE SEASON AND CROPS.

Mr. Editor:—On returning home, after several months' absence, by reason of ill-health, I find the complaint general among the cultivators of this neighborhood that their crops are much less perfect than was anticipated. The general reason assigned is, superabundance of moisture. Within the last two months there has fallen about as much rain as there usually falls in an entire year. The consequence is, many of the crops are literally drowned out; and what are not, fail to ripen in a sound condition. Potatoes, for instance, are entirely defective. Onions, not more than two-thirds of a crop, where a large yield was anticipated. Rye, less than half the usual quantity of matured grain. Corn, much stalks but imperfect ears. Apples, none to speak of. Grasses, much grown, but a large part spoilt in making. And so generally with all the products of this abundant season.—Heretofore, we have suffered from a want of moisture; the present season from a superabundance of it.

South Danvers, Sept. 12, 1856.

Remarks.—We have travelled over a large extent of country since the middle of August, and find the crops, as stated by our correspondent, sadly affected by the rains.

For the New England Farmer.

WHY DON'T YOU SELL YOUR FARM?

Mr. Editor:—This question was asked me by a neighbor, after reading your travels in New Hampshire, and glancing at the "Farms for Sale." I have a reason for not selling—without mentioning a thousand truly logical arguments which give more favor to farming than any other profession—which I will state. If people continue to be vulgar enough to eat, and the country becomes too vulgar for a decent young man to remain in it, I see no other alternative than this, that farms will be plenty and cheap for *cash*, and provision will be high for cash, and a general stagnation in business will turn the rich men of the cities to purchasing farms, and for the future to bend their intelligent and enterprising minds and bodies to the *now* honorable occupation of farming. This is the ultimate alternative. I expect under these circumstances to be respected yet. E. J. W.

Freetown, Mass.

EXTRACTS AND REPLIES.

THE YELLOW LOCUST.

I wish you would state where *yellow locust* seeds are to be had—the best time to plant them—how long the seeds are to be soaked, and how valuable the yellow locust tree is. J. W.

Newport, N. H., 1856.

Remarks.—Our correspondent is referred to the *Monthly Farmer* for 1854, for several articles on this subject. See pages 48, 265, 479 and 482. Mr. S. Cune, of Brattleboro', Vt., writes the *Country Gentleman:*

"I will tell you how I managed to get a grove of yellow Locust trees. About twenty years ago I sowed half a pound of locust seeds in beds, the same as I sow beets or carrots. I prepared my seed by pouring hot water on it and letting it stand a few hours. The next spring, I took up my seedling trees, and set them out on a piece of ground that was so poor that it would hardly turf over. I plowed some furrows twelve or fifteen feet apart, laid the roots of my seedling trees into them, about two feet apart, covered them with my hoe, righted them up with my hands, and let them go without further cultivation. At this time I have a beautiful grove of trees, straight and thrifty, and many of them long enough for fence posts. The effect on the land is wonderful. It produces ten times the feed it did before the trees were set out.—When I took possession of my farm, I found that acre had been skinned, until it was almost worthless. Now it produces double the feed of any acre of pasture I have. I take no little pride in showing my trees, and the luxuriant growth of white clover under them."

HUBBARD SQUASH.

Mr. Editor:—I would respectfully refer Mr. Robert D. Weeks, or any other person desirous of obtaining seed of the Hubbard squash, to J. L. Gould, Esq., of Bridgeport, Ct. I would gladly supply that gentleman directly, but all our spare seed were reserved for Mr. Gould, and forwarded accordingly. Mr. G. has entered largely on their cultivation the present season, and should the season prove propitious, after November next, he will supply parties desiring it, with good seed, at a fair price. I have Mr. Gould's authority for making this statement. Yours respectfuly,

J. J. H. Gregory.

Marblehead, Mass., 1856.

HOW TO CURE FODDER CORN.

Mr. Editor:—In the first place, get a stick that has two sticks inserted at right angles at the top. Insert it in the ground, after stooking the corn draw the stick out; then let it stand as you would field corn. Draw the corn round, and then draw it over. Stook a little this year, and try it.

Medfield, 1856. Wm. Salisbury.

WASHING MACHINE—GARDENER'S TEXT-BOOK—PEARS—PEACHES.

Do you know of any washing machine that saves enough labor to make it an object to procure one? Are they preferable to washing fluids? If so, why? Which is the best kind, and how do the floating ball machines work?

Is Schneck's Gardener's Text Book better adapted to this part of the country than Buist on the Kitchen Garden? Do Beurre Clarigeau pears hang well on the tree? Which is the best kind of early watermelon? Which the best very early and late peaches? A SUBSCRIBER.

Fitchburg, Sept., 1856.

REMARKS.—Mr. W. Wheeler, of Acton, Mass., is the manufacturer of a washing machine which is constantly in use in our family, and will not be dispensed with very soon—so say the women.

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WOOL, POTATOES AND CHEESE.

A correspondent sends us a letter, with samples of wool, and requests us to see some of the manufacturers, and ascertain what they will pay for 2,000 pounds of it; also, what he can get for potatoes, peas and cheese, and who are the honest men to whom he can consign his goods! Dunder and blitzen! O, for the head of a Hydra, and the hands of a Briareus—if we only had them, how we'd make the wool fly! Wool and cheese, potatoes and peas. Now we are one of the cleverest and most accommodating persons in the world; we never could see a child in trouble, but would leave a good dinner to run and tend it; never heard a maiden sigh, but felt as though we must go and whisper consolation in her ear, and never saw a horse going to market with his master's potatoes and peas, but we had a mind to take a part of the creature's load on our own back. But what shall we do? A hundred letters a day, sometimes, and only one poor head to decipher them all. Some of them are in the Arabic, and some in the Sanscrit, we suppose, for we don't know what else they can be. Really, good friend, we wish we were a huckster or a commission merchant, for your sake; but as we are not, must refer you to the hosts of either that flock about North and South Market Streets in Boston. One thing is certain, the sample of wool is very fine, and "the manufacturer" may know where to find it by calling at this office. We have no doubt the cheese, potatoes and peas are, also.

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LIME AND POTATOES.

I have several times noticed that where potatoes are planted on dressing which contains a portion of lime, or old plastering, they are much affected with the rot; whilst those in the same field where lime is not used, are perfectly sound. Having some potatoes accidentally left on a board which had been whitewashed, for a few days, on examination I found those on the board entirely worthless with the rot, while some in a dish near by, that had otherwise been treated in the same way, were perfectly sound. Should this save for one of your numerous readers, a single mess of potatoes, my object will be accomplished. A. A. WELLS.

Kennebunk, Sept., 1856.

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ABOUT PRESERVING.

In preserving green corn, mine was put up in tin cans, boiling hot, and sealed while the cans were hot, and yet became sour. I wish you would give us such information as will reach the pockets of the poor. Give us the best receipt for making tomato ketchup, pickling cucumbers, and you will much oblige many of your subscribers.

A SUBSCRIBER.

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CABBAGES STUMP FOOTED.

Will you, or some of your correspondents, inform me how to prevent cabbages from growing stump footed. Formerly it was a very easy matter to raise cabbages, but of late years, the roots become covered with knobs, which destroy the growth of the top, and prevent their heading. I have tried them on different soils, with different manures, but nothing seems to remedy the evil. I am satisfied the excrescences are not formed by a worm, nor by any particular manure. H. D. J.

Upton, August, 1856.

BOYS' DEPARTMENT.

"WHERE THERE'S A WILL, THERE'S A WAY."

Henry Burgett was not quite twelve years of age when his father died; and fast as his tears fell when he knew that his kind papa would be with him no more, he wept, if possible, more violently, when his mother told him they must leave the pretty cottage, the only home they had ever known, and that hereafter he was to live with farmer Howard.

"We are poor, Henry," she said, "very poor, and young as you are, my boy, you must now earn your own support. But keep up a stout heart, you can do it. Fie on those tears!" and she turned hastily that he might not perceive the grief that was piercing her own soul.

Farmer Howard was a hard master, and a sorry time had poor Henry during the long summer days that succeeded this interview with his mother. It was work, with no relaxation, from the earliest dawn until the twilight had quite faded. Often did his courage fail, and despondency and indolence urge him to stop, but a stern necessity was on him, he must do or starve; and hence he kept at it, wearily enough to be sure, until the last apple was in the cellar, the last ear of corn in the crib, and all things secured against the winter, with the most painstaking thoroughness.

The winter, tardy as its approach appeared to Henry, came at last, with its three months privilege of school, and its glorious long evenings that he might spend as he chose, with no spectres of huge heaps of corn to husk, or vast fields of potatoes to dig, looming up in the distance.

How well those hours for study were improved, or how highly prized, the bright light which the blazing pine splinter shed from the attic window, until long past the hour of twelve, might tell. (A

pine splinter, because the mistress was a careful soul, and saved the candle-ends to light Henry to bed.) He advanced with surprising rapidity in his studies, and what wonder? Ardent, persevering effort was never unsuccessful. When the spring came he was quite master of the Latin grammar, and was beginning to read in this language with some degree of ease. The summer, with its wearisome round of duties, could not damp his desire for knowledge. Every spare moment was carefully seized and sedulously employed in his favorite study.

The winter came again, and with gleeful heart Henry bounded away to the village school. On the way a classmate overtook him; one who had often jeered him for his bashfulness, and plain, homespun attire, and who, with every advantage, had uninterruptedly pursued his studies.

"Ha, ha, how are you, Hal?" said he; "don't you wish you could read all that?" triumphantly holding up a Latin Reader, and spreading his palm complacently over the open page. Henry kept his own counsel, and together they proceeded toward the school-house.

Soon after the opening of the morning exercises, the class in Latin was called to the recitation bench.

"Henry," said the master, "I think you will not be able to go on with the class you were in last winter, you must fall back with the beginners."

"I should like to enter the Virgil class, Sir."

"Virgil class! Nonsense, boy, you could not read one word. Just let me see now," opening the book and placing it in his hand.

"How far shall I read?"

"As far as you can," replied the master, with a sharp twinkle of his gray eyes, and an involuntary sarcastic smile.

Henry commenced unhesitatingly to read, and had turned the first, second and third leaves before the master had sufficiently recovered from his surprise to arrest him.

"Stop, sir! Where did you learn all this?"

Henry told him where. Taking him by the arm, the master led him to the centre of the room, and placing his hand upon his head, said:

"Attention, boys; here is a hero; a greater conqueror than was Cæsar or Napoleon. Give him a round; three times three, now."

Cheerily, heartily, rang out that applause, penetrating the farthest recesses of that time-worn building, making the windows fairly shake again. What a proud day was that for Henry! How his heart leaped and almost bounded out of his bosom—how the boys shook hands and envied him—how the girls nodded and blinked their pretty eyes at him; he has not yet forgotten, and although at the present time the laurels of a country's regard are clustering thick about his brow, he often says, "That was the victory of my life. It was at farmer Howard's I learned to labor unflinchingly for a given end."

Children, this is no fancy sketch. Such a lad as I have described really existed, and from his example may we not learn to plant for ourselves elevated standards, and never give over until we have mastered every obstacle and reached our aim?

It is not always lessons to be learned, or woodpiles to be demolished or rebuilt. There are bad hearts to govern, vicious inclinations to restrain, selfish dispositions to be overcome; many, many wrongs to be righted. There is room for a life long labor in our own hearts. Up then, my young friends, with a strong purpose of life. Shrink not at the sight of difficulty. Remember that "where there's a will, there's a way," and that perseverance is a sure guaranty of success.—*N. Y. Independent.*

LADIES' DEPARTMENT.

For the New England Farmer.

FRUIT PIES.

I have seen a statement going the rounds of the papers, and yours amongst the rest, I think—that fruit pies should never be made with an under crust. Now I want to tell you my plan, which I think far better, and much more convenient than to dish out with a spoon. I often make *both* crusts of the same, and consider them much more healthy to set before my family, yes, and company too, than a fashionable crust, though it does not *look* quite as nice. Take sour milk and cream, with a little salt, and saleratus enough to sweeten, mix quick, roll thin, and when ready to put the fruit on, set in the stove oven, till it has time to rise, and bake slightly—then proceed in the usual way. Cream of tartar may be used as a substitute for sour milk; and a little butter, or lard, for cream.

H. Barlow.

Black Lace.—The brown hue, frequently perceptible in black lace, if occasioned merely by dust, may be removed by the following simple process: Steep the lace in porter which has stood long enough to become slightly stale. Dab it about in a basin until perfectly soaked; then press out the liquid by squeezing, carefully avoiding wringing, which would tear or fray the lace. After stretching it to its proper width, pin it out to dry. This will be found preferable to the use of gum-water for imparting to the lace the requisite degree of stiffening or dressing, and will make it appear as beautiful as when new.

To Clean Kid Gloves of any Color.—Take white soap and make a very thick "lather" with a soft brush, such as gentlemen use in shaving, and put the glove upon the hand; cover it with the "lather" and rub it off quickly with a clean flannel till it is dry. Repeat the process till the glove is clean, being careful that it is done so quickly as not to saturate the kid, and "it will look as nice as new."

Preserved Fish.—When the Russians desire to keep fish perfectly fresh, to be carried a long journey in a hot climate, they dip them into *hot beeswax*, which acts like an air-tight covering.—In this way they are taken to Malta, perfectly sweet even in summer.

Holes in Pies.—Persons who are in the habit of making pies during fruit season, should not make a hole in the top of their pies. By leaving the crust whole the juice is made to boil quicker, and thus the fruit is well done without the crust being burnt. The same result applies to meat pies.